OCCUPATIONAL THERAPY

AND

INCLUSION IN CHILD CARE ENVIRONMENTS

by

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The undersigned hereby certify that they have read and recommend to the Faculty of Graduate Studies for acceptance a thesis entitled “Occupational Therapy and Inclusion in Child Care Environments” by Darla King in partial fulfilment of the requirements for the degree of Master of Science.

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ABSTRACT

The purpose of this descriptive study was to determine whether and how Canadian occupational therapists contribute to child care inclusion. Over 200 Canadian paediatric occupational therapists completed a web based survey identifying the nature of their practice related to inclusion. Findings confirmed that Canadian occupational therapists do support child care inclusion, and that some characteristics of their practice and clients influence the degree of inclusive practice. Results also suggested that occupational therapists could improve their support for child care inclusion by increasing their focus on institutional environments, increasing referrals to child care programs, and increasing the amount of time spent in child care environments. Further study is required to provide a more in-depth understanding of occupational therapy and child care inclusion; this might be best accomplished through qualitative study of practices of occupational therapists identified to be most inclusive in this study.

LIST OF ABBREVIATIONS USED

AB – Alberta

ADA – Americans with Disabilities Act

AOTA – American Occupational Therapy Association

CCAAC – Child Care Advocacy Association of Canada

CINAHL – Cumulative Index to Nursing and Allied Health Literature

CIRC – Childcare Information Resource Collection

CCRC – Canadian Coalition for the Rights of Children

CAST – Center for Applied Special Technology

CAOT – Canadian Association of Occupational Therapists

CMOP-E – Canadian Model of Occupational Performance and Engagement

DEC – Division of Early Childhood

ERIC – Education Resources Information Center

IDEA – Individuals with Disabilities Education Act

MB – Manitoba

NAEYC – National Association for the Education of Young Children

NB – New Brunswick

NF – Newfoundland and Labrador

NS – Nova Scotia

NT – Northwest Territories

NPDCI – National Professional Development Centre on Inclusion

NU – Nunavut

OT – Occupational Therapy

ON – Ontario

PE – Prince Edward Island

QC – Quebec

SK – Saskatchewan

SPSS – Statistical Package for Social Sciences

UNCRC – United Nations Convention on the Rights of the Child

US – United States of America

UNRPD – United Nations Convention on the Rights of Persons with Disabilities

YT – Yukon

GLOSSARY

Child Care Environments: Early childhood settings such as daycares, preschools or child care programs which are formalized and/or regulated. Child care environments provide supervision by non-parental caregivers, typically with training in the field of early childhood education. Programs may be part time or full time and include a variety of small and large group activities, and indoor/outdoor play that incorporates opportunities to learn through play. Block play, sand and water play, dramatic play, manipulative play and play with music and rhythm are common play themes (Widerstron, 2005).

Child Care Inclusion: "The values, policies, and practices that support the right of every infant and young child and his or her family, regardless of ability, to participate" in child care environments. (Division of Early Childhood [DEC]/ National Association for the Education of Young Children (NAEYC], 2009, p. 2)

Child Care Provider: Paid staff members who work within child care environments. Child care providers may or may not have specialized training in the field of early childhood education.

Director: A child care provider who is designated the leader or manager of a child care environment.

Universal Design for Learning: The philosophy of designing and creating, from the beginning, a child care program that meets the needs of the widest number of children, including those with diverse needs, as opposed to designing a program to meet the needs of typical, or average children. Universal design for learning would

include careful design of all aspects of the child care environment including the environment, materials and supplies as well as the actual curriculum/ activities.

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CHAPTER I

Introduction

Child care inclusion refers to the "values, policies, and practices that support the right of every infant and young child and his or her family, regardless of ability, to participate" in child care environments (DEC/NAEYC 2009, p. 2). This definition suggests that inclusive child care settings should welcome all children, including those with special needs such that they gain a sense of belonging, experience positive social relationships and friendships, and are supported to reach their full potential (DEC/NAEYC, 2009). Occupational therapy practice focuses on enabling individuals to participate fully in their daily occupations, supporting the philosophy of inclusion. However, there is little known about whether or not Canadian occupational therapists actually contribute to the inclusion of children with special needs in child care environments, and if so, how this is accomplished. This descriptive study investigated child care inclusion from an occupational therapy perspective to determine whether and how Canadian occupational therapists contribute to child care inclusion. A survey design was used to answer the following research question:

> How do Canadian occupational therapists contribute to the inclusion of children with special needs in child care settings?

To support answering this research question, the following sub questions were explored:

1. How frequently do occupational therapists use inclusive strategies to support child care inclusion?
2. Do occupational therapists refer children with special needs to child care environments? What factors influence referrals?
3. What do occupational therapists identify as barriers to and opportunities to promote inclusive child care?
4. How does occupational therapy practice support enabling occupation in child care environments?

The topic of occupational therapy and child care inclusion is significant on a personal, professional and societal level. Personally, the primary investigator practiced clinically in child care environments for several years. During this time the scope of occupational therapy practice was routinely questioned by other stakeholders. This supports the author's opinion that the role of occupational therapy in child care has not been fully explored and is not well recognized. This research study aims to describe the current practice of Canadian occupational therapists related to child care inclusion. It will provide an opportunity to heighten awareness of the actual and potential roles that occupational therapists can fulfill within child care environments.

On a professional level, while there is a strong literature base to support the role of occupational therapists in educational programs for school aged children (Clarke, Polichino & Jackson, 2004; Cramm, Pollock, Dennis, Subramaniam & Carkner, 2009; McKinley-Vargas & Thomas, 2008; Pollock & Stewart, 1998; Niehues, Bundy, Mattingly & Lawlor, 1991; Sahagian-Whalen, 2002), there is less to support the roles of occupational therapists in early learning environments. Investigating and describing the

current practices of Canadian occupational therapists related to child care inclusion may help the profession to advance its knowledge and critical thinking about inclusion in child care in early learning environments such as child care centers, family child care homes, and so on.

On a societal level, the majority of Canadian children participate in occupations in community environments including daycares, preschools and family resource programs (Friendly, Beach, Ferns & Turiano, 2006). Since over sixty percent of all Canadian children have mothers that work outside the home (Friendly et al., 2006) there is a growing demand for high quality child care. Unfortunately, there are not sufficient child care spaces to meet these demands (Friendly et al, 2006; Canadian Council of Social Development (CCSD), 2006). For children with disabilities there are many barriers to inclusion, resulting in even greater difficulty accessing appropriate child care. Killoran, Tymon and Frempong (2007), for example, found that in Toronto preschools only 2.4% of students were identified as having a disability. This is significantly lower than the estimated 10% in the general population. In 2001, approximately only 3 in 10 children with disabilities in Canada (54,330 children under the age of 15) were in some form of child care (CCSD, 2006). The majority of preschool directors in Killoran and colleagues' study stated that they would turn away a child because of a disability (Killoran, Tymon & Frempong, 2007), and other research suggests that as high as 16% of parents of children with disabilities have been refused daycare due to their child's disability (CCSD, 2006).

This study offers an opportunity to explore whether and how Canadian occupational therapists are supporting inclusion of children with special needs within the Canadian child care environment. It is anticipated that the research findings will have

implications for occupational therapy practice, education, and research. Identifying the contributions of the occupational therapy profession may provide benefits to other professional groups, including those within the field of early childhood education, who are interested in identifying supports and practices that assist with the development of inclusive programs. It may also assist other professional bodies who are interested in studying practice models that support children with special needs in child care environments.

In the next chapter, a review of the current literature related to both child care inclusion and pediatric occupational therapy practice will be presented. This will set the stage for this study by highlighting current knowledge as well as identifying gaps in the literature. The methodology used to answer the research questions will be introduced in chapter three, allowing readers to understand the research design, tools used for data collection as well as the approach to analysis of data. Chapter four will summarize the relevant research findings, and these findings will be discussed in the context of child care and occupational therapy practice in chapter five. Finally, chapter six will present a summary of the study, and identify limitations and implications of the findings for occupational therapy practice and education. Opportunities for further study will also be identified.

CHAPTER II

Review of Literature

Occupational therapists work with children in a variety of settings to enable engagement and participation in the occupations of childhood. In today's society many children participate in occupations in community environments such as daycares, preschools and family resource programs. For children with disabilities there are many barriers to successful inclusion in these settings. While there is an abundance of literature related to early childhood inclusion (NPDCI, 2007), there is little that clearly articulates the contributions of occupational therapy to child care inclusion. The purpose of this literature review is to explore the current activities of occupational therapists in child care environments and to investigate linkages between pediatric occupational therapy practice and child care inclusion. To achieve this goal the concept of inclusion will be explored from a general disability rights approach as well as in the context of child care environments and occupational therapy practice. Literature will be presented to identify practice trends in pediatric occupational therapy. Two models for operationalizing child care inclusion will be explored. The first model will examine three defining features of early childhood inclusion as identified in a joint position paper by the Division of Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC), both of which are organizations based in the United States (US). The second model will operationalize inclusion using concepts from the

SpeciaLink Inclusion Practices Profile Tool. Both models will then be examined from the perspective of occupational therapy theory and practice to establish linkages with child care inclusion.

Literature reviewed in this chapter was identified through the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and the Education Resources Information Center (ERIC). The Childcare Information Resource Collection (CIRC), a search engine available through the Childcare Resource and Research Unit of the University of Toronto was also used. Some additional references were identified through hand searching the references of previously identified articles. The focus of the literature reviewed was inclusion, child care environments, and pediatric occupational therapy. Some literature related to school aged occupational therapy practice was also included due to potential relevance of the shared educational context.

Child Care Environments

Early childhood programs and services may occur in a variety of organizational and community contexts including homes, child care settings, faith-based programs, recreational programs, preschool and head start programs as well as public pre-kindergarten services (DEC/NAEYC, 2009). Experiences may be provided by parents or other caregivers; in children's own homes or homes of others; or in community settings. Programs may be regulated or unregulated and provided under a corporate or non-profit model. Neither the literature nor practice has established a common nomenclature to classify early childhood programs. Early childhood education, child care, daycare, preschool, and early learning are all used, often without definitions to clarify the specific purpose, structure, or age range of participants. This study focuses on early childhood

settings which are formalized and/or regulated such as daycare, preschool or child care programs for children thirteen years of age or younger. In general, these programs provide supervision by non-parental caregivers, typically with training in the field of early childhood education. Programs may be part time or full time and include a variety of small and large group activities and indoor/outdoor play that provide opportunities to learn through play. Block play, sand and water play, dramatic play, manipulative play and play with music and rhythm are common play themes (Widerstron, 2005). For the purpose of this study, the terminology child care environment is used to indicate such programs.

In Canada, the regulation of child care programs is the responsibility of provincial and territorial governments. Governments provide legislated parameters that guide the operation of center based, family based, school-aged and often, nursery or preschool services (Beach, Friendly, Ferns, Prabhu & Forer, 2008). These services are generally regulated through a social or community services ministry, which may also offer a variety of funding supports (Beach et al., 2008). In 2008 there were approximately 867,000 spaces available for children aged 0 – 12 in regulated child care programs across Canada (Beach et al., 2008).

Inclusion

A Disability Rights and Legal Perspective. Inclusion has been established as a basic right of all persons through international documents such as the United Nations Convention on the Rights of Persons with Disabilities (UNRPD), and the United Nations Convention on the Rights of the Child (UNCRC). The purpose of the UNRPD is "to promote, protect and ensure the full and equal enjoyment of all human rights and

fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity" (UNRPD, article 1, 2007). The UNCRC highlights the importance of inclusion by identifying that children have the right to participate fully in family, cultural and social life (UNCRC, 1989). Article 23 of this convention specifically addresses the rights of children with disabilities, and again, the concepts of inclusion and participation are evident. Children with disabilities are identified as having the right to active participation in the community, to special care and assistance, and access to services (UNCRC, Article 23, 1989). The guiding principle of non-discrimination identified in Article 2 can be interpreted to suggest that all children of working parents, including those with disabilities, disorders, and/or health impairments, have the right to benefit from child care services (Canadian Coalition for the Rights of Children [CCRC], 2002).

In the US federal laws such as the Americans with Disabilities Act (ADA) and the Individuals with Disabilities Education Act (IDEA) provide a legal mandate for inclusion for children from birth to 21 years of age. IDEA mandates that "persons with disabilities be educated on an equal basis with persons without disabilities and receive related educational services within the 'least restrictive environment'" (Case-Smith & Cable, 1996, p. 24).

In Canada, the Charter of Rights and Freedoms, human rights legislation, and the Canada Health Act protect the rights of persons with disabilities (Allen, Paasche, Cornell & Engel, 1994). Since education is under provincial jurisdiction there are no Canadian federal laws that mandate inclusion in educational settings (Allen et al., 1994). Despite the lack of federal legislation, all provinces and territories have committed to integrated, inclusive education for children with disabilities (CCRC, 1999). This has been supported

by the 2003 Multilateral Framework Agreement on Early Learning and Child Care, which provides federal funding for early childhood programs to the provinces and territories through the Canadian Social Transfer (Cool, 2007). The framework identifies inclusion as one of five principles of effective early learning and child care programs (Cool, 2007). Many provincial governments have demonstrated commitment to these principles in policy statements and through the initiation of projects to increase the number of children with special needs in childcare programs (Lero, 2010). Although inclusion is generally accepted as best practice in child care environments in Canada, it is not legally required, and children can be excluded from child care environments based on level or type of disability.

A Child Care Perspective. Research evidence suggests that inclusion takes many different forms, and that a single definition of inclusion does not exist (NPDCI, 2007; Odom, 2000). From a child care perspective, inclusion is generally accepted to mean that all children can attend and benefit from the same child care programs, regardless of individual abilities. Irwin (2005) of SpeciaLink, the National Center for Childcare Inclusion in Canada, identifies the following seven key principles of childcare inclusion:

1. Zero reject: All children are welcome to attend, regardless of type and/or level of disability.
2. Natural proportions: The proportion of children with disabilities in the child care program is roughly the same as the proportion of children with disabilities in the community.
3. The same hours/days of attendance are available to all children.

4. Full participation: Children with special needs have their needs met within the regular group activities and routines, through accommodations, modifications, and extra support where necessary.
5. Parents' participation is encouraged and supported at the parents' comfort level.
6. Leadership and pro-active strategies are used to maximize inclusion, and
7. Advocacy for high quality, inclusive child care is encouraged.

A review of the literature surrounding inclusion in childcare environments demonstrates that many factors impact a program's ability to implement inclusion (NPDCI, 2007). Two approaches will be presented to provide a more detailed model for child care inclusion. First, the DEC and the NAEYC propose a model which identifies access, participation and supports as three defining features of inclusion (DEC/NAEYC, 2009). Access is a central concept that can be applied to all aspects of the early childhood environment. This includes the teaching practices and curriculum, as well as the physical and social environment (Darragh, 2008). There are many factors that impact a child's ability to access a child care program. These include factors related to a child and their family, the child care curriculum and environment as well as cultural factors. Access, as a defining feature of inclusion, strives to ensure that a wide range of learning opportunities, activities, settings and environments are provided in a way that they can be accessed by all children (DEC/NAEYC, 2009). Most often, access is attempted through adaptation and universal design: "the philosophy of designing and creating products and environments to be accessible to the greatest extent possible, to the people who use them, without the need for adaptation" (Center for Universal Design, 2008). When applied to child care environments the principles of universal design are often referred to as

universal design for learning (Conn-Powers, Cross, Traub & Hutter-Pishgahi, 2006), which promotes inclusion by providing multiple means of representation, expression and engagement within a child care program. Where often programs are designed to meet the needs of the average or typically developing child, universally designed programs are designed, from the start to include an environment, materials and supplies, programs and activities that will meet the needs of the greatest number of learners within the broadest range of skills and abilities (Center for Applied Special Technology [CAST], 2008; Conn Powers et al., 2006; Darragh, 2007). This new paradigm, developed by CAST provides a framework for synthesizing the fields of early childhood and special education (Darragh, 2007).

While the concept of applying the principles of universal design to learning curriculum has been evolving since the late 1990's (Orkise & McLane 1998), applying the concepts of universal design for learning specifically to early childhood programming is a relatively new approach, emerging in early childhood literature in 2005. That being said, the concept that adaptations to the environment and activities are required to include children with special needs has long been recognized as an important component of inclusive programming. Functional adaptations support play, learning, and socialization to help a child to fully engage in the environment, program, or social aspects of the setting (Cross, Traub, Hutter-Pishgahi & Shelton, 2004). Even when universal design principles are carefully incorporated into the program design, providers may need to make adaptations to their settings, activities and time in order to successfully include specific families and children (DEC, 2007; Mulvihill, Cotton & Gyaben, 2004).

Participation, as a defining feature of inclusion, means "using a range of instructional approaches to promote engagement in play and learning activities, and a sense of belonging for every child" (DEC/NAEYC, 2009, p.1). To promote participation, intentional strategies such as embedded learning opportunities, routines-based teaching and explicit interventions are used to support learning and development (DEC/NAEYC, 2009). Sandall and Schwartz (2006) present the building blocks model for effective instruction in inclusive early childhood settings. This empirically based model describes the range and types of supports and instruction necessary to make inclusion successful (Sandall, Schwartz & Joseph, 2001).

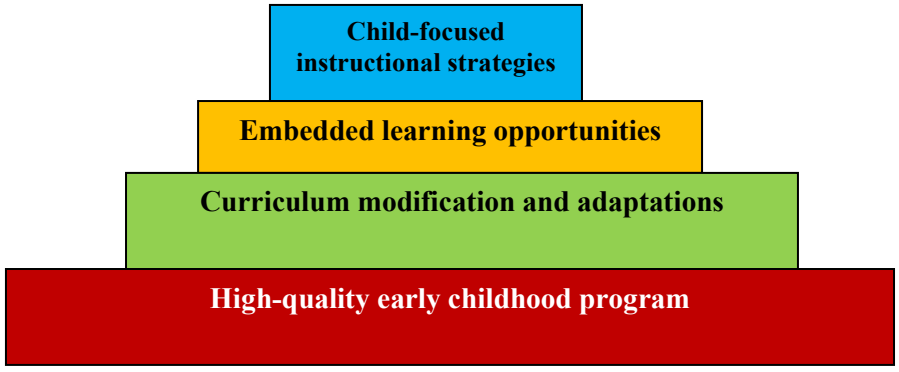

Figure 1. Building blocks model
Adapted from: Building Blocks Model for Teaching Children with Special Needs
Sandall, S. and Schwartz, I. (2006)

A high quality program that meets the learning needs of all children is the foundation of the building block model. The next three components offer specific educational strategies to promote inclusion. As the blocks become smaller the intensity and specificity of the teaching strategies increase.

Curriculum modifications have been accepted as an instructional strategy in inclusive classrooms (Wolery et al., 1994 in Sandall, Schwartz & Joseph, 2001). Curriculum modifications may include strategies such as environmental support; activity simplification; materials adaptation; use of special equipment; or adult, peer or invisible supports (Sandall & Schwartz, 2006). Lane and Mistrett (2001) provide another example of adaptation in their "Let's Play Model," which demonstrates that when children with disabilities are supported in play their play becomes more complex, they interact more often with material and people, and they become more playful (Lane & Mistrett, 2001). The "Let's Play Model" supports play for children with special needs through the use of assistive technology interventions such as adapted commercial toys, positioning items, mobility items, switches, adapted battery operated toys and interfaces, computer hardware and software and communication items (Lane & Mistrett, 2001). While curriculum modification are generally applied across the curriculum for all children, the next level in the building block model targets specific children within the child care program.

Embedded learning opportunities, refers to preplanned opportunities to incorporate teaching opportunities for a specific child into the program's usual activities and routines (Sandall & Schwartz, 2006). These strategies would typically be utilized with children who have an identified special learning need. The concept of embedded learning opportunities has been advocated by early learning experts who have examined the effectiveness with generally positive results (Sandall, Schwartz & Joseph, 2001; Case-Smith & Holland, 2009).

The highest level supports in the model are child-focused instructional strategies. These are more explicit strategies that provide planned, consistent, and systematic instruction in order to teach specific skills, behaviors, or concepts typically implemented by early childhood teachers or other specialists (Sandall & Schwartz, 2006). These supports would most often be used for children whose disabilities are most severe, and who have the most difficulty participating in child care programs.

In order to be successful in providing inclusive services, the efforts of individuals and organizations must be supported by appropriate infrastructures (DEC/NAEYC, 2009). These infrastructures are reflected in DEC/NAEYC's final defining feature of inclusion as "supports". Supports include access to professional development, resources and program policies to enhance collaboration among key stakeholders, specialized services and therapies, and quality frameworks that reflect and guide inclusion (DEC/NAEYC, 2009). For children with disabilities, these necessary supports should be available without financial penalty for parents or child care programs (Child Care Advocacy Association of Canada, 2004). Early learning and child care should be viewed as one piece of a comprehensive system of care that supports children with special needs and their families. This system may include family members, physicians, occupational therapists, specialists, home support workers, school staff, child care, after school or summer program staff, and outside agencies (Mulvihill et al., 2004). Building strong linkages with each of these stakeholders is an important component of inclusive programming (Purcell et al., 2007; Odom, 2000). The coordination of supports is important to ensure that all key stakeholders collaborate such that services are well integrated (DEC/NAEYC, 2009). Integrated therapy refers to the coordination of

therapy and education and suggests that therapists should move towards providing their services in the classroom, with other children involved, responding to children's cues, helping to develop functional goals, joining in classroom routines, and consulting collaboratively with the teacher (McWilliam, 1995).

McWilliam (1995) suggests that when therapeutic services are delivered to child care programs they may be described according to the following dimensions: where therapy is provided, whether more than one child is involved, what intervention style is used, the purpose of the goals, activities used, and how the therapist's role is seen. McWilliam proposes a taxonomy of service delivery models for the integration of therapy that includes the following six models; individual pull-out, small group pull-out, 1:1 in classroom, group activity, individual during routine, and collaboration. Each of the six models fall along a continuum from segregated to integrated. Table 1 provides a more detailed description of each of these models.

Table 1. Continuum of six consultative models

Model	Location	Therapy Focus	Peers	Teacher's Role
Individual Pull-Out	Anywhere apart from the regular class	Directly on child functioning	Not present	Provide information before therapy and receive information after therapy
Small Group Pull-Out	Anywhere apart from the regular class	Directly on functioning by child(ren) with special needs	One to six peers present	Provide and receive information before and after therapy, decide schedule with therapist and which peers will participate
One-on-one in classroom	Classroom; often apart from other children	Directly on child function	Present, but not involved in therapy	Conduct activities, play with other children, keep children from disrupting therapy: rarely, watch therapy session, provide and receive information after therapy
Group activity	Classroom; small or large group	On all children in group and on peer interactions, emphasis on meeting special needs of children	All or some children in group have special needs	When small group, conduct activities and play with other children; if possible, watch or participate in therapist's group. When large group, watch or participate in group activity and participate in planning large-and possibly small-group activity
Individual During Routine	Classroom; wherever focal child is	Directly but not exclusively on the focal child	Usually present	Plan and conduct activity including focal child, observe therapist's interactions with child, provide information before therapy, exchange information with therapist after routine
Collaboration	In or out of classroom	Teacher, as related to the needs of the child; can vary from expert to collegial model	Present if occurring in class; not present if occurring out of class	Exchange information and expertise with therapist, help plan future therapy sessions, give and receive feedback, foster partnership with therapist

From: "Integration of therapy and consultative special education: A continuum in early intervention" by McWilliam, 1995 in *Infants and Young Children, 7(4),* 29-38. Copyright (1995) by Aspen Publishers, Inc.

Overall, findings from the research have concluded that integrated therapy is an effective method to enhance communication and collaboration between therapists and

educators that promotes positive outcomes for children with special needs (Case-Smith & Holland, 2009; Meece Scott, McWilliam & Mayhew, 1999).

In order to successfully implement an inclusive program, child care staff and administrators must be skilled in working with children with special needs and have positive attitudes towards inclusion (Killoran et al., 2007; Purcell et al., 2007). Evidence shows however, that early childhood educators often feel ill-equipped to deal with the complexities of children's special needs (Frankel, 2004; Clough & Nutbrown, 2004). This perceived lack of knowledge affects the providers' ability to be inclusive (Killoran et al., 2007) reinforcing the need for ongoing support (Bruns & Mogharreban, 2007).

Other examples of supports are the use of additional staff and the development of inclusive policy. When children with special needs are included in child care settings, additional personnel are often needed to adequately supervise and provide learning opportunities for both children with special needs as well as typically developing children (Fewell, 1993; Mulvihill et al., 2004). Temporary staff members are often utilized to facilitate inclusion, improve staff-child ratios, and offer the child and staff additional supports. In addition, inclusive intentions are often reflected in early childhood settings' program philosophy and policies. Policies on guiding children's behavior, collaboration with early intervention providers, participation of families, sharing of information, and staff development for example, will all impact how successfully programs support children with disabilities (City of Toronto, 2007).

A second framework that can be useful in better understanding the concept of child care inclusion is based on the SpeciaLink Inclusion Practices Profile Scale. SpeciaLink is a not-for-profit organization, currently based in Nova Scotia. It has been

operating for over 20 years in Canada, and has been involved in numerous projects to advocate for improvements in child care inclusion on a national level. The SpeciaLink tool assesses

> "the extent to which physical and human resources are in place, and parents, staff, and external professionals work together to ensure that each child's individual needs are met, while promoting full participation and positive social interactions within an early learning program" (Lero, 2010, p. 3).

The SpeciaLink tool is gaining recognition as a measure of a child care programs' ability to implement inclusive programs in Canada. Table 2 provides a description of the 11 core domains that are identified within the tool as contributors to successful inclusion in child care environments (Irwin, 2005).

Table 2

Items Comprising the SpeciaLink Inclusion Practices Profile Scale

1.	The physical environment	The degree to which modifications have been made to support inclusion and enhance accessibility
2.	Equipment and materials	The extent to which adaptations have been made and special equipment and materials are available and used in ways that allow children to participate comfortably in the group and that enhance their skills and capabilities
3.	Director's role	The degree to which the director is actively involved in supporting inclusion and is knowledgeable and enthusiastic
4.	Staff support	The degree of support provided to staff through consultative assistance and flexible/reduced ratios to support them in meeting individual children's needs
5.	Staff training	The number of staff who have some training related to special needs as well as staff's access to continuing in-service training opportunities
6.	Therapies	The degree to which therapeutic intervention is provided to the children in the centre – and the manner in which it is provided (in a pull-out spaces or separate clinic and/or within the program); the extent to which staff are involved in goal setting and work collaboratively with parents and therapists
7.	Individual program plans (IPP's)	The extent to which IPP's are used to inform programming in the regular group setting, and are developed collaboratively by resource teachers or consultants, staff and parents
8.	Parents of children with special needs	The extent to which parents are involved, receive information and participate in decision making – both related to their own child, and as an advocate for other children at the centre and in the community
9.	Involvement of typically developing children	The extent of interaction between children with special needs and their peers; the extent to which social interaction is facilitated and children are accepted by others
10.	Board of directors or advisory committee	The degree to which the centre's board or parent advisory committee promotes and supports inclusion as policy in the centre and as desirable in the wider community
11.	Transition to school	The degree to which the local school or school board, parents and program staff work collaboratively in transition planning and are proactive to support the school placement of children with special needs

Note. Adapted from "Assessing inclusion quality in early learning and child care in Canada with the SpeciaLink child care inclusion practices profile and principles scale," by D.S. Lero, 2010

Within the SpeciaLink tool, each of these 11 domains is represented by a number of items, each of which can be scored by individual child care programs to measure its

degree of inclusion. The 11 domains also are useful from a research perspective to identify specific components of inclusion.

Lero's (2010) research provides strong evidence for the utility and reliability of the SpeciaLink tool as a measure of inclusion quality. The study is based on a voluntary sample of scores provided by almost 600 classrooms, in 216 different child care centres and preschool programs across Canada. Within this sample, scores from each item of the assessment tool were analyzed. The median intra-item correlation was 0.51 and the Cronbach's alpha was +0.83, indicating that all items made distinct contributions to the score and that the internal reliability of the tool was good. Analysis of assessment scores were also completed to compare "inclusive classrooms" (those with at least one child with special needs at time of the assessment) with non inclusive classrooms. This analysis identified that scores for inclusive classrooms (mean 3.88, standard deviation 1.01) were significantly higher than scores obtained in classrooms that did not include children with special needs (mean 2.76, standard deviation 1.04). Omega effect sizes ranged from 0.18 to 0.46 using Welch F ratios on One-way Analysis of Variance tests that corrected for unequal sample size and unequal variances. Since no other valid measure of inclusivity was available, Lero used supplemental information for 257 of the classrooms where directors had provided a gross global rating of their classrooms level of inclusion. When these scores were compared to the scores obtained from the SpeciaLink tool, SpeciaLink scores were found to predict the centre directors' global ratings of centre's inclusivity (Lero, 2010). Significantly higher scores were also identified for inclusive centers as compared to classrooms that did not enroll children with disabilities

(Lero, 2010). These findings provide evidence to support that each of the 11 identified inclusion domains contribute to successful inclusion in child care environments.

The models of child care inclusion presented from the DEC/NAEYC and SpeciaLink are very complementary, supporting a common understanding of inclusion in child care environments. Inclusion is presented as a vision whereby children with special needs have equal opportunity to access and participate in child care environments. Both models recognize that child care programs must have the necessary equipment, resources and supports in place such that all children, including both typically developing and those with special needs can participate fully in all aspects of the program. In the next section, the concept of inclusion will be explored from an occupational therapy perspective. This will allow a comparison of theoretical understandings of inclusion in the general literature, child care literature and the occupational therapy literature. Current pediatric occupational therapy practice will then be explored using some of the main themes/components of inclusion identified in the child care literature above.

An Occupational Therapy Perspective. While occupational therapy has not always been explicit in its position concerning inclusion, it does inherently support the notion of inclusion. Townsend and Polatajko (2007) argue that inclusion is a core element in occupational therapy philosophy and practice by providing the following definition of occupational therapy:

> Occupational therapy is the art and science of enabling engagement in everyday living, through occupation: of enabling people to perform the occupations that foster health and well-being; and of enabling a just and inclusive society so that all people may participate to their potential in the daily occupations of life. (p.2)

The Canadian Model of Occupational Performance and Engagement (CMOP-E) is used by occupational therapists to guide practice. The model identifies the main domain of concern of the profession as occupational performance, which is seen as the dynamic interaction between people, their occupations and the environments in which they live, work and play (Townsend & Polatajko, 2007). Enablement is seen as the core competency of occupational therapy practice. Therefore the primary goal of occupational therapy intervention for children with disabilities is enabling participation in the daily activities of childhood (Law, Finkelman, Hurley, Rosenbaum, King, King, et al., 2004). Skills used by occupational therapists to assist any client or population with enabling engagement include adapting, advocating, coaching, collaborating, consulting, coordinating, designing/building, educating, engaging and specializing (Townsend & Polatajko, 2007).

When children with disabilities attend child care environments they may experience difficulties participating in occupations such as self care routines, structured program activities/outings and unstructured play. These occupational performance difficulties increase the risk that a child will be excluded either from a specific program activity or from the child care environment entirely. The application of occupational therapy skills and knowledge in conjunction with client and family centered approaches, knowledge of health and disability, and the ability to identify strengths and resources can be used to promote successful occupational performance in child care environments (Restall, Leclair & Banks, 2005). This suggests that occupational therapy involvement in child care environments may be a step toward inclusion for children with disabilities.

Inclusion is closely linked with the concept of occupational justice (Stadnyk, Townsend & Wilcock, 2010). Occupational justice is seen as an "embedded value and an implicit outcome of occupational therapy" (Townsend & Polatajko, 2007). It reinforces the occupational therapy principle that all persons have the right to experience and participate in occupations that are meaningful and enriching, and that this participation contributes to a person's well being (Townsend & Polatajko, 2007). The Canadian Association of Occupational Therapists (CAOT) (2009) in its *Position Statement on Healthy Occupations for Children and Youth* affirms a belief in participation and inclusion. This position statement notes that children and youth have the right to develop and become healthy through participation, despite limitations of illness, disability, environmental, social and economic circumstances (CAOT, 2009).

Occupational therapy recognizes that limiting children's ability to engage in meaningful occupations compromises their overall development and well being and recognizes that they may have impacts across the lifespan (CAOT, 2008). Therefore, when children with disabilities are denied access to early learning and child care, or are unable to participate fully, their development and health is negatively impacted. Participation mediates the relationship between inclusion and positive child outcomes, implying that children with disabilities need to be provided with the same opportunities for participation as their peers without disabilities in order to experience the same benefits (Simeonsson, Carlson, Huntington, McMillen & Brent, 2001).

Whether reviewing inclusion from a general disability rights, child care or occupational therapy perspective, full and active participation by children with disabilities is an important component of inclusion. While inclusion may not always be

legally required, the literature presented indicates that it clearly understood as a right and respected as best practice across all settings.

Pediatric Occupational Therapy Practice

Earlier in this chapter, key components of inclusion were identified from the child care literature. Therapeutic interventions, specialized instruction and child specific instructional strategies, each of which holds obvious linkages to therapeutic intervention, were all noted as a valuable and necessary support to inclusion. In addition, the SpeciaLink Tool specifically identified therapies as one of the 11 domains that are necessary to support high quality inclusion. The following section will explore pediatric occupational therapy practice to identify whether or not the literature identifies occupational therapy as a support for child care inclusion and if so, how.

Occupational therapy provided to young children is often referred to as 'early intervention'. Generically this term recognizes the importance of providing intervention during critical periods of development. There is some discrepancy as to what ages and services are considered to fall under the premise of early intervention. The US generally defines early intervention as covering the periods between birth and age three; while in Canada services provided from birth to age 6-7 (when a child enters the public school system) are generally recognized in this manner (Frankel, Gold & Ajodhia-Andrew, 2007). Early intervention can include therapeutic services provided by a variety of professionals including occupational therapists, speech language pathologists, physical therapists and early interventionists. Professionals providing early intervention services use many different models. Interventions may focus directly on the child, or they may include the parents, educators or other family members. The approach may focus on

remediation of deficits, overall function, or on changing the environment to elicit a change in the child (Smith, 2007). Interventions may occur in a clinic/hospital setting or in more natural environments such as a family home, regular or special preschools or other community settings.

The literature suggests there are many benefits to providing early intervention services within natural environments such as homes, child care settings and community centers/programs. These benefits include the ability to enhance relationships among family members and between therapists and parents; increased opportunity for modeling and support; as well as improved capacity to assess a child's true needs and solutions based on actual environmental demands (Childress, 2004; Hanft & Ovland-Pilkington, 2000; Jung, 2007; Ovland-Pilkington, 2006; Woods, 2008). In a review of the literature, Shelden and Rush (2001) conclude that naturalistic interventions that include "child-initiated instruction, activity-based approaches and integrated interventions are as or more effective than adult-initiated instruction, directive approaches, and pull-out therapy" (p.2). Providing therapy within natural environments is about more than just where the services are provided, it is also about how the services are delivered (Shelden & Rush, 2001; Woods, 2008). Working in a natural environmental model broadens the context of intervention from only working with children, to allow more involvement and support to parents and other caregivers (Jung, 2007), moving from a client centered approach towards a family centered approach (Childress, 2004). Providing services in non-clinical environments maximizes natural learning opportunities by using everyday things children experience and allowing intervention to be embedded into daily routines (Childress, 2004; Jung, 2007). Shelden and Rush (2001)present a variety of literature to demonstrate

that early intervention in natural environments is well supported by research evidence, is family centered, cost efficient, allows for interaction with other providers, and supports positive outcomes for children. Hanft and Rhodes (2004) suggest that occupational therapy practice supports participation in natural environments.

Current Occupational Therapy Practice in Child Care Environments

Occupational behavior is strongly influenced by social policies and legislation that help determine who can and cannot participate in particular occupations, and under what circumstances (Stadnyk, Townsend & Wilcock, 2010). In the case of child care environments, policy and legislation influence not only who participates in programs and to what degree, but also the services that are provided. In the US, laws promote and support the utilization of occupational therapy services within early intervention and school based settings (Clark, Polichino & Jackson, 2004; Dreiling & Bundy, 2003). For example, Bruder and Staff (1997) provide a description of services for children as part of statewide implementation of early intervention services delivered under the IDEA legislation of 1990. The study describes a model in which early childhood educators delivered specialized instruction and specialists (occupational therapists, physical therapists, speech-language pathologists and nurses) collaborated with child care providers to deliver early intervention services. While almost half the children also received specialized instruction at home, the majority of the services occurred in child care centers. US laws mandate inclusion within the public school system as well as within early learning and child care environments. The abundance of American literature describing occupational therapy in childcare environments as compared to the Canadian

literature suggests a consequent stronger presence of occupational therapy in childcare environments in the US.

The American Occupational Therapy Association (AOTA) membership data shows that in 2003, 34.4% of occupational therapists in the US identified early intervention or school settings as either their primary or secondary work setting (Effgen, Teeters Myers & Myers, 2007). Canadian statistics for pediatric practice are considerably lower, with 2009-2010 membership statistics from the CAOT (2010) indicating that only 7% of its members practiced in school settings. Early intervention was not available as a practice setting on the survey. This being said, 25% of occupational therapists indicated that their primary caseload was children under the age of 18 (CAOT, 2010), and it can be assumed that at least some portion of these occupational therapists provided services in naturalistic settings, which may have included child care environments.

A survey conducted by Brown, Rodger, Brown and Roever (2007) offers the first substantial research that examined the practice trends of Canadian pediatric occupational therapists. This study surveyed 272 members of the CAOT who indicated that pediatrics was their primary area of clinical practice. Results identified that Canadian pediatric practice is very diverse, crossing many settings, using many different practice models, assessments, and interventions. This study confirmed that occupational therapists are working with children in early learning environments as 3.7% of respondents indicated that they were employed by a day care center, nursery school or preschool (Brown et al, 2007). Unfortunately the survey did not collect data regarding the actual site for delivery of services. It is likely that occupational therapists employed in community agencies and

pediatric rehab centers delivered services to children outside their place of employment possibly including child care environments.

Occupational therapy clients may be individuals, families, groups, communities, organizations or populations (Townsend & Polatajko, 2007). While traditionally occupational therapists working in early intervention have dealt directly with a child or family as a client, occupational therapists may also work with child care programs or organizations in a consultative role to support inclusion on a broader level. Occupational therapists who work in community-based settings may take several different practice approaches including working with children and their families and caregivers individually, co-leading small groups in child care centers, consulting with early intervention staff, and providing in-service for child care providers (Hanft & Rhodes, 2005). The literature provides some examples of occupational therapists working within child care environments. Priest (2006), for example, presents the 'Motor Magic' program as an example of building community capacity to support the development of preschool children. In this instance an occupational therapist works with early childhood educators to deliver groups to children with or at risk of fine motor and sensory processing difficulties within the curriculum of a preschool program. Shasby and Schneck (2005) present similar services called sensorimotor theme groups. Ideishi, Ideishi, Gandhi, and Yuen (2006) describe occupational therapy's role in creating inclusive outdoor play environments at a headstart preschool program in Pennsylvania, US. Golos, Sarid, Weill and Weintraub (2011) described a multidisciplinary preschool early intervention program that assisted children with improving their performance skills, and participation in preschool activities.

These examples speak to a definite presence of occupational therapy within child care environments. It identifies that occupational therapists have worked with children with disabilities in child care environments both in direct therapy and more consultative roles. While there are no published studies that specifically examine the contributions of occupational therapy to child care inclusion, the literature supports the potential for clear links between occupational therapy practice and child care inclusion. To explore these linkages the occupational therapy literature will be reviewed using the themes of access, participation and supports, which have previously been identified by the DEC/NAEYC as defining features of child care inclusion.

Access. Universal design, adaptations, and technology have been identified as strategies to assist children with disabilities in accessing child care environments and activities (Conn-Powers, Cross,Traub & Hutter, 2006; Lane & Mistrett, 2002; Sandall, Schwartz & Joseph, 2001). Each of these strategies are also a familiar theme in occupational therapy practice. While universal design for learning has only recently been introduced in the occupational therapy literature (Klinger, Campbell & Knight, 2009), the concept of universal design more broadly is very familiar to occupational therapists who recognize that it "contributes to a person's health and well-being by enabling engagement in self-care, productivity and leisure" (CAOT, 2009, p.1). Although most occupational therapy references to universal design concern the built environment, enabling skills of adapting, modifying and building, as well as the application of functional analysis further support occupational therapy's potential use of the universal design for learning framework.

Adaptation is recognized as a key occupational enablement skill (Towsend & Polatajko, 2007). Occupational therapy assessment analyses the physical, social, cultural and temporal aspects of a setting's environment and activities (Ideishi et al., 2006). These can then be adapted or modified to match the needs, interests, and abilities of children and teachers in inclusive settings (Ideishi et. al, 2006). In child care settings adaptation of toys or other learning materials, program components/activities, or the environment is recognized as best practices for child care inclusion (Mulvihill et al., 2004). Occupational therapy research regarding the effects of the environment on children's occupations also supports a role for occupational therapy in universal design and environmental modifications (Law & Dunn, 1993; Law, Haight, Milroy, Willms, Stewart & Rosenbaum, 1999).

Specialized equipment and/or technology is commonly used by occupational therapists to help children overcome occupational challenges and facilitate meaningful play. This is also supported by the early learning and childcare literature as a technique to improve access of children with special needs (DEC/NAEYC, 2009; University at Buffalo, 2005). In their study profiling Canadian occupational therapy practice, Brown and colleagues (2007) found that assistive devices, adaptive equipment and technology were among the top four intervention strategies used by Canadian pediatric occupational therapists.

Participation. The DEC/NAEYC refers to participation as using specific instructional strategies to promote engagement in play and learning activities (2009). Occupational therapists have a well established role in facilitating participation in everyday occupations (Townsend & Polatajko, 2007). Missiuna and Pollock (1991)

describe the role of occupational therapists in enhancing free play opportunities for children with physical disabilities. Limitations imposed by caregivers, physical and personal limitations of the child, as well as environmental and social factors are all identified as barriers to participation in play. Occupational therapy assessment and interventions assist with overcoming barriers, and support participation by children.

Some examples of specific interventions to support participation include providing opportunities for free play, consultation with parents, consultation with teachers and caregivers and providing recommendations about playthings (Missiuna & Pollock, 1991). Ideishi et al. (2006) suggest that the occupational therapist role also includes helping to establish new preschool routines, identifying common routines and interests among different classrooms, and communicating needs, proposals and schedules with other staff. Embedded learning opportunities are another example of a specific instructional strategy that is well recognized as an important component of therapeutic interventions in natural environments (Childress, 2004; Hanft & Ovland-Pilkington, 2000, Jung, 2007; Sheldon & Rush, 2001). Occupational therapists typically identify individual goals for children and use activities to provide an opportunity for practice and skill development. Occupational therapists who work with child care staff to provide ways to practice goal attainment as a part of regularly occurring program activities support the concept of embedded learning opportunities as a way to improve inclusion.

Clark, Polichino and Jackson (2004) describe the ultimate outcome of occupational therapy services in early intervention and school-based programs as "enabling the child to participate in activities of daily living, education, work, play, leisure and social interactions" (p. 684). This may be accomplished through "analysis of

the physical, social, cultural and temporal qualities of the environment and activities…. and adapting and matching the needs, interests, and abilities of the children and teachers with the environmental and activity qualities that optimize engagement." (Ideishi et al., 2006, p.3).

Support. The DEC/NAEYC (2009) describes supports as "an infrastructure of systems-level supports" that "undergird the efforts of individuals and organizations providing inclusive services to children and families" (p.2). The occupational therapy literature provides evidence supporting the need for a coordinated system to enable children with disabilities. Family centered care provides a model that may help to establish this type of coordinated system, one that is concerned with the optimal level of development of children and recognizes the importance of the family in coordinating care. This model of care is shared by many including early intervention services, pediatric rehabilitation (King et al., 2003), and childcare environments (Mulvihill et al., 2004). Jirikowic and colleagues (2001) suggest that occupational therapists are tending to move towards providing "community-based, family-centered services that minimize service fragmentation and increase service coordination and continuity of care" (p. 50). This message is consistent with occupational therapy best practices, as occupational therapists working in natural environments consider and respect other caregivers and service providers working with children (Childress, 2004; Jung, 2007).

Occupational therapists are able to support caregivers by teaching them the most effective means for enhancing occupational performance, as well as how to develop strategies that maximize occupational engagement for the children (Gray, Horowitz, Sullivan, Kharasche Behr & Abreu, 2007). Brown and colleagues (2007) suggest that

parental/caregiver education, teaching and learning are the most common intervention strategies used in pediatric occupational therapy practice. It was used by over 90 of the 272 occupational therapists that responded to their survey. Occupational therapists often work with support staff who may be in place specifically to support children with special needs who need extra support to assist with meeting therapeutic goals, and to enhance their inclusion within the program (Clarke, Polichino & Jackson, 2004). In a literature review of occupational therapy in the school system, Sahagian-Whalen (2002) uses findings from Dunn (1990) and Case-Smith (2002) to show that greater interaction between the teacher and the therapist leads to enhanced effectiveness of occupational therapy. She also suggests that "occupational therapists enable a more positive view of the student and provide a basis for developing a new and more effective teaching and/or parenting strategies" (Sahagian-Whalen, 2002, p. 16), thus enabling teachers and parents to more effectively support the child.

Need for Further Research

Occupational therapists' knowledge of everyday occupations as well as their understanding of environmental influences (social, physical, and institutional) provides an excellent framework for delivery of therapeutic interventions in natural settings, including early learning and child care environments. While the literature provides many examples that support a role for occupational therapy within natural environments (Brown et al, 2007; Ideishi et al., 2006; Priest, 2006; Shasby & Schneck, 2005), it does not provide significant information specifically about the extent and nature of occupational therapists' current practice in early learning and child care environments (Bruder & Staff, 1997). Most of the published literature reviewed in this paper describes

early intervention practices regardless of environmental context. Literature that speaks to occupational therapy practice in child care environments is primarily from the United States, and much of the literature is descriptive in nature. There have been few studies that speak to pediatric occupational therapy practice patterns in Canada (Brown et al., 2007). Brown and colleagues' (2007) study clearly indicates that occupational therapists are practicing in early childhood settings, and indicates some of the common practice trends for pediatric occupational therapists. It does not however provide evidence to indicate if or how occupational therapists are actually thinking about child care inclusion, and if or how their practice supports child care inclusion.

The occupational therapy and early childhood literature reviewed in this study identify clear linkages between occupational therapy practice and the defining features of child care inclusion. These linkages support a possible contribution of occupational therapy to child care inclusion. The early childhood literature seems to view occupational therapy primarily as a support to individual children as a member of an interdisciplinary team, and while the occupational therapy literature gives examples of broader roles, the role of direct 1:1 intervention seems to be the most commonly cited. Occupational therapy's knowledge of universal design, typical and abnormal child development, expertise in functional assessment and enablement can support inclusion in a variety of ways over and above the individual treatment of children with special needs.

This study will attempt to build on the current literature base, which provides mainly anecdotal accounts of occupational therapists working within child care environments by specifically demonstrating the types and frequencies of strategies used within these environments. It also will provide a Canadian context, as most of the

published literature is not from Canada. Clearly identifying Canadian practice trends is important to help establish if Canadian occupational therapists are supportive of childcare inclusion, and also to help formulate an understanding of the mechanisms though which inclusion may be supported. This information will have implications for occupational therapy education, practice and research. The notion that occupational therapists are supportive of inclusion is inherent in the very definition of the profession. Providing research evidence to explore the actual contributions of the profession to inclusion in a specific context would provide practical information to identify whether or not Canadian occupational therapist practice actually supports child care inclusion. Findings from this research may also be helpful for occupational therapists in identifying a clear role in child care inclusion. It may also educate families, early childhood educators, health care providers, educators, and policy makers on the role of occupational therapy in early learning settings. This research may provide some basic ideas which can be ground work for further exploration to look at how inclusion works, and possibly for theory development.

CHAPTER III

Methodology

Research Questions

This research study is descriptive in nature, with its purpose being to describe Canadian occupational therapy practice related to child care inclusion. This was accomplished by collecting and analyzing data to answer the following question:

How do Canadian occupational therapists contribute to the inclusion of children with special needs in child care settings?

The following four sub questions were explored:

1. How frequently do occupational therapists use inclusive strategies to support child care inclusion?
2. Do occupational therapists refer children with special needs to child care environments? What factors influence referrals?
3. What do occupational therapists identify as barriers to and opportunities for promoting inclusive child care?
4. How does occupational therapy practice support enabling occupation in child care environments?

Research Design

This study used a survey design to explore the practices of occupational therapists related to child care inclusion. The main concept studied was 'child care inclusion'. As noted in the literature review, there is no consistently accepted validated measure, or even definition of child care inclusion. This provided challenges when attempting to investigate the concept from an occupational therapy perspective. To facilitate meaningful analysis, the concept of child care inclusion was operationalized by breaking it down into key domains. The Inclusion Practices Profile Scale, developed by the National Center for Childcare Inclusion in Canada, was introduced in the previous chapter. This tool was developed for child care centers to assist them in measuring their level of inclusion, as opposed to measuring occupational therapy's contributions to inclusion. Although the tool could not be directly used in this study, it did provide a useful framework for operationalizing the concept of inclusion.

The SpecialLink Practices and Profile Scale identified eleven core concepts that can be individually analyzed as components of child care inclusion. The eleven core concepts include physical environment, equipment and materials, staff, director, board of directors, staff training, therapies, individual program plans, involvement with typical children, parents, and transition to school (Irwin, 2005). Specific occupational therapy practice strategies related to each domain were identified by the author, and a survey was used to collect information concerning the frequency of use of each of these identified strategies by Canadian occupational therapists. Examination of the data allowed the researcher to describe how occupational therapy practice contributed to inclusion in child care environments.

Many naturalistic approaches were considered as possibilities to study the identified research questions, however a quantitative design, specifically a survey design was selected. A survey design was well suited for many reasons. It was anticipated that practice trends may have varied considerably from province to province. Since the research question referred specifically to Canadian occupational therapists, it was necessary to target a large sample size that was representative of occupational therapists across the country. Utilizing a survey allowed a large number of Canadian pediatric occupational therapists to have an opportunity to participate, thus allowing trends to be identified on both a regional and national basis. If a more naturalistic design was used the sample size would have been very limited, and it would be impossible to provide data which described practice trends across Canada. Other advantages of using a survey included the cost and time efficiency, as survey results provided precise and measurable data that was efficient to tabulate and analyze. The inclusion of survey questions which required qualitative responses added some depth to the numerical and descriptive data. This provided some basic ideas which may serve as ground work for further exploration to look at how inclusion works, and possibly for theory development.

A significant drawback of using a survey design was that despite a healthy sample pool, there was a possibility of a low return rate, limiting the validity of the resulting data. In addition, child care inclusion is a very broad, complex concept, which is difficult to measure empirically. Since there were no existing surveys or tools designed to measure inclusion from an occupational therapy perspective, or even to clearly articulate best practices of inclusion in this context, there was a possibility that the survey itself

would not be a valid measurement tool. Grounding the instrument in evidence from the literature, including linkages to an existing inclusion measure minimized these risks.

Research Instrument

Since there was no available tool to measure occupational therapists' contributions to inclusion, the author designed a questionnaire (see Appendix A) as a data collection instrument. The survey was intended to collect information about the practice patterns of Canadian occupational therapists related to the concept of child care inclusion. As previously noted, the concept of child care inclusion offered many challenges in measurement, first that there is no universally agreed definition that establishes the domains of the concept, and second that there was no known objective measure for this concept. Despite these challenges, it was important to ensure that the survey was collecting the right type of information. Structuring some of the survey around key themes identified in the SpeciaLink Child Care Inclusion Practices Profile Scale helped to ensure that the main features of child care inclusion were captured. Drawing on the SpeciaLink tools' content validity (Irwin, 2005) and proven utility and reliability (Lero, 2010), as well as findings from the comprehensive literature review helped to ensure that the survey would collect relevant information.

In order to fully explore the research questions, an operational definition of the concept of 'child care inclusion' was required. For the purpose of this research the concept of child care inclusion was operationalized to have 11 domains, as identified in the SpeciaLink Child Care Inclusion Practices Profile Scale (Irwin, 2005). In order to determine if respondents were contributing to child care inclusion they were asked to indicate how frequently they engaged in specific occupational therapy treatment

strategies which were related to inclusive practices identified in the SpeciaLink tool. Occupational therapy strategies identified for two SpeciaLink domains (director and board of directors) were felt to be very similar. These two domains were therefore combined into one domain for the purpose of analysis. For the purposes of analysis, the following 10 domains were identified as components of inclusion:

- Domain 1: physical environment
- Domain 2: equipment and materials
- Domain 3: director and inclusion / board of directors and similar units
- Domain 4: therapies
- Domain 5: individual program plans
- Domain 6: parents of children with special needs
- Domain 7: staff training
- Domain 8: involvement of typical children
- Domain 9: preparing for transition to school
- Domain 10: staff support

The survey questionnaire included multiple choice questions that captured quantitative data with nominal/ordinal responses, as well as open ended questions which required qualitative responses. The survey included demographic questions to help identify characteristics of respondents (i.e. education, experience, and employment), characteristics of their clients (i.e. age, diagnosis) as well as information about treatment settings used by respondents. Respondents were asked to define the frequency of use of specific inclusive strategies, each of which had been linked with one of the 10 identified inclusion domains. (See Appendix B for a listing of individual strategies by domain.)

The questionnaire also included questions related to occupational therapy practice, and others related barriers to inclusive practice and opportunities to support child care inclusion.

Prior to implementation the study, a pilot test was completed to obtain feedback from occupational therapists. Piloting the survey helped to confirm that questions were reflective of necessary domains.

Population/ Recruitment

The population for this study was Canadian occupational therapists who work with children under the age of fourteen. Children over this age would not typically use structured childcare programs, therefore occupational therapists working only with older children/ adolescents were not included. A convenience sample of Canadian occupational therapists who had registered on Occupational Therapy (OT) Finder and/or Occupational Therapy Networker was available. Occupational therapists who are members of the Canadian Association of Occupational Therapists may choose to be registered on these databases at time of registration with the association. These registers identify occupational therapists' primary and secondary client population. The sample for this survey included all occupational therapists who identified either preschool (ages 0-4), school age (ages 4-17), or mixed-aged children (ages 0-17) as either their primary or secondary caseload. It was recognized that for the purpose of this investigation, only occupational therapists who work with children under the age of 14 (not 17) were of interest. Therefore, in the survey itself, respondents were asked specifically whether or not they worked with children under the age of 14. Survey respondents who did not meet this inclusion criterion were then excluded, ensuring that all respondents included worked

with children under 14 years of age. The primary investigator searched the OT Finder and OT Networker databases to identify any occupational therapists who met the study criteria. As of November 2010, 759 potential respondents were identified in this manner. In 2009-2010 approximately 45% of all CAOT members resided in Eastern Canada (Ontario/Quebec), 26% resided in Central (Alberta, Saskatchewan, Manitoba) or Northern Canada (Yukon, Nunavut, Northwest Territories), 16% in Atlantic Canada (Newfoundland and Labrador, New Brunswick, Nova Scotia, Prince Edward Island), and 13% in Western Canada (British Columbia) (CAOT, 2010). Therefore it was anticipated that the sample would include therapists from across Canada.

Not all Canadian occupational therapists are members of the CAOT. There was a potential that there would be disproportionate numbers of potential and actual participants from provinces where membership with CAOT is mandatory as compared with the provinces where CAOT membership is not mandatory. Also, not all CAOT members choose to register with OT Finder/OT Networker. For example, in the 2009-2010 year, membership statistics indicated that 1426 CAOT members identified that their primary or secondary client ages were less than 17 years of age (CAOT, 2010). This is significantly higher than the 759 occupational therapists with the same population who are registered on OT Finder/OT Networker.

Recruitment was simplified by the fact that contact information for occupational therapists was readily available on the CAOT website. All occupational therapists registered with OT Finder/ OT Networker agreed to have their contact information available for research purposes at the time of registration, indicating that no specific letter of permission from CAOT was required. The Canadian Association of Occupational

Therapists was however informed of the nature of the research, and that the database would be utilized in this study.

Pilot Test

A pilot test of the research instrument was completed in the spring of 2010. This involved administering the survey to six occupational therapists who were practicing with a pediatric population, and who were not included in the actual research sample. These individuals were identified by the primary investigator. The survey was modified by adding additional questions which allowed pilot participants to provide feedback about each question, specifically the relevance, readability, format and content. Each pilot participant was sent the pilot survey electronically; using the same format planned for the actual survey was to be administered. This provided an opportunity to test the survey delivery method. Based on the feedback received from pilot participants' changes were made to ensure that the survey instrument was easy to understand, provided clear directions and obtained reliable results. Pilot testing confirmed that the questions were clear and understood uniformly by participants and that content was appropriate and thorough. Piloting the tool also provided an estimate as to how long it took research participants to complete the survey, and this was updated in the informed consent prior to the actual survey administration.

Administration of the Survey

All members of the eligible population (n=759) were sent an email inviting them to participate in the study. The email included an introductory letter/consent document (see Appendix C) which provided the specific details about the study, as well as a link to the web based survey. Participants were invited to complete the survey electronically,

via Dalhousie's electronic survey software Opinio. The questionnaire collected data regarding the participant's demographic and employment characteristics. It also asked participants about their participation in specific strategies related to inclusion of children with special needs in child care environments. While most questions were quantitative, and required respondents to select an appropriate response from a list of available responses, there were also several questions which required a narrative response. The questionnaire was 15 pages in length, and it was anticipated that it would take approximately 10-30 minutes to complete, depending on the experiences of the respondent. Opinio automatically sent email reminders were sent to non-respondents 7 and 21 days following the initial mail out. All responses were stored on the Dalhousie Opinio server.

Analysis

Raw survey data were downloaded from the Opinio webserver into the Statistical Package for the Social Sciences Software (SPSS17). The data were then cleaned to eliminate responses from participants who did not meet inclusion criteria, and to account for missing data. Only available data was analyzed, with no statistical models or replacement values used as substitutions. In a general review of data, it appeared that survey fatigue may have impacted the data set. This is reflected in the decreased number of respondents in questions later in the survey. Recoding of data was completed where necessary. This included recoding responses from the "northern" zone to avoid a possible breach of anonymity due to small number of respondents from this area. Cleaning of data also included a careful review of information provided to describe respondents' qualitative responses describing "other". In several questions respondents

had selected “other” and then provided a description for the “other”. When these descriptions matched an existing category, they were re-coded as appropriate. All instances of recoding are identified in the findings section.

Qualitative and quantitative data collected by the survey was then pooled and analysed. Descriptive analyses were conducted to compute univariate statistics for categorical data. This included frequency counts and percentages for both demographic and background data as well as individual inclusion strategies. To explore the relationship among categorical variables, bivariate and multivariate cross-tabulations were run. Where there was a sufficient response rate, chi-square tests of association were calculated to determine if there were any significant differences between sub-groups of respondents on variables of interest. In cases where there were not sufficient responses to allow chi square analysis, data categories were collapsed into larger groupings. In these cases the distribution of data was carefully reviewed to collapse data along logical patterns. For example, in the original data, respondents rated the frequency of use of each inclusion strategies on a five point scale which included the possible choices of never, rarely, occasionally, frequently and almost always. To support analysis these five categories were collapsed into three. The new categories were rarely (which included the never and rarely categories), occasionally (unchanged) and frequently (including the frequently and almost always categories). Instances where data was collapsed are specifically identified when findings are presented. An alpha level of ≤ 0.05 was used as a level of significance for all testing. Qualitative data was carefully reviewed by the author, including coding to identify key themes. Qualitative information was also used to illustrate and strengthen quantitative findings.

Ethical Considerations

Informed consent was obtained to ensure that the rights of all participants were not compromised. An introductory letter that accompanied the questionnaire explained the details of the research process and allowed potential respondents to make an informed decision about whether or not they would complete the questionnaire. Respondents who did not consent would simply not complete or return the questionnaire. Those who consented to participate accessed the survey online, completed and returned the questionnaire. The introductory letter provided information on the following:

Details of what participants were required to do to participate: For this questionnaire participants were required to access and complete the electronic survey, which was estimate to take approximately 10-30 minutes. The purpose of the study was explained, as well as the background of the researcher. Each participant was asked if they consented for the use of direct quotations from narrative questions.

Risks, discomforts, and vulnerability: Risks for participants were minimal. There was a chance that occupational therapists would feel some sense of conflict should they identify that they were not completing intervention strategies that they felt (or that the survey implied) was consistent with best practice. There was also a collective risk that the overall results may show that Canadian occupational therapists were not supportive of best practices for child care inclusion, which could collectively tarnish the professional image of occupational therapists.

Rights of the participants: Instructions for the questionnaire stressed that participation was voluntary, and that there were no consequences for not participating. Since the questionnaires were unsigned, and responses stored on a server once completed, there was no feasible manner to withdraw or withhold material once the survey was returned. The participant's right to privacy was protected as the questionnaire was anonymous. The large sample size supported anonymity; however in some cases (e.g. Small number in a geographic area) there was a small risk of possible identification. Respondents were assured that responses such as these would only be presented in a more aggregate form. Addresses for potential participants were obtained through OT Finder/OT Networker via the Canadian Association of Occupational Therapists website. Members granted permission for this type of activity when they registered with the association.

Possible benefits: Participants did not directly benefit from participating in the study. This research was beneficial in contributing to the knowledge base for Occupational Therapy by identifying how occupational therapists support child care inclusion. This knowledge would be of use to occupational therapists, managers, and policy makers and support emerging roles for occupational therapists in child care environments.

Confidentiality of records: The identity of participants was kept secure. Neither participants, nor organizations were identified as a study participant in any reports or publication of this research. All responses remained confidential and results were to be presented in aggregate form only. All data was maintained in a secure manner, either in a locked filing cabinet or a secure server (electronic data) which was password protected.

Respondents were assured that all data would be destroyed five years after study completion.

Dissemination: In the introductory letter, plans for dissemination of the results of the questionnaire were explained. This included publishing of the research as a part of the researcher's master's thesis, and possible publishing in a professional journal or presentation at a conference.

Contact information: The researcher's contact information was provided such that potential participants were able to contact the researcher before, during and after the survey was completed to ask any questions, or express any concerns. Participants who expressed interest in obtaining the results of the study were directed to contact the primary investigator.

It was unlikely that there were any significant threats to the psychological well-being, health, values or dignity of participants in this research study. The use of informed consent procedures minimized any potential threats/risks. Prior to administration of the research tool, ethical approval was obtained from Dalhousie University, as the sponsoring agency.

This chapter has identified and described the research questions as well as the methodology that was used to obtain findings and analyze them. The survey design allowed for collection of information concerning the current inclusive practices of a large number of pediatric occupational therapists. The next chapter will focus on providing a description of the respondents, as well as presentation of the research findings. Trends and themes identified through analysis of the results will also be provided.

CHAPTER IV

Findings

A total of 759 potential participants were identified using CAOT's OT Finder and OT Networker databases. Using the Opinio platform, invitations to participate were forwarded via email on February 20th, 2011 with reminders sent to non-respondents on March 6th and 13th. Of these invitations, 87 emails were returned as undeliverable by the server. A variety of error messages were received, mainly that email addresses were incorrect, mailboxes were full, email addresses were not active, etc.. This left a total of 672 possible participants. The survey closed on March 18th, 2011 with 231 responses received, resulting in a response rate of 34%. Of these 231 participants, 8 did not meet all inclusion criteria. One participant was practicing outside of Canada, and seven had not worked with a pediatric population in the past 24 months. Another participant's data was removed as they had opened the survey, but not provided any responses. Data from these nine respondents were omitted, leaving a total of 222 respondents.

In order to understand more about the occupational therapists who responded to the survey, responses to questions about region of practice, education and experience were analyzed. General information about current employment context and client caseload was also explored.

Characteristics of Respondents

Education and Experience. Most respondents were experienced therapists. Over 50% had more than 15 years experience, with only 11% having less than five years experience. Participants were asked to indicate their highest academic qualification in occupational therapy, as well as to identify if they had any continuing education (e.g. neurodevelopmental treatment certification, sensory integration training) or other non-occupational therapy formal academic training that was relevant to work with children. Most respondents (over 77%) indicated they had a bachelor's degree in occupational therapy, with 21% having a masters or doctorate degree. While almost all participants (90%) indicated that they had received continuing education supporting their work with pediatrics, only 18% indicated that they had other relevant formal academic qualifications. Respondents indicated that their continuing education prepared them for work in child care environments more than their formal occupational therapy education. While only 19% of respondents were familiar or very familiar with the emerging concept of universal design for learning, the vast majority of respondents (90%) were comfortable or very comfortable working within child care environments. Table 3 summarizes the experience and education of respondents.

Table 3

Education and Experience of Respondents

	Frequency	Percent
Years of Experience (n=212) [1]		
0-4 years	23	11
5-9 years	39	18
10-14 years	39	18
15-20 years	31	15
20+ years	80	38
Highest Occupational Therapy Education (n=210)[1]		
Diploma/Certificate	2	1
Bachelors Degree	162	77
Masters (entry to practice)	25	12
Masters (post professional)	18	9
Other	3	1
Other Non-OT Academic Qualifications? (n=210) [1]		
Yes	37	18
No	173	82
Other Relevant Continuing Education (n=209) [1]		
Yes	189	90
No	20	10
How well has OT education prepared you to work in child care environments? (n=210)[1]		
Very – Exceptionally Well	22	11
Well	81	39
Not very well	85	41
Not at all	22	11
How well has continuing education prepared you to work in child care environments? (n=189)[2]		
Very -Exceptionally Well	95	50
Well	76	40
Not Very Well	15	8
Not at All	3	2
How familiar are you with the concept of universal design for learning? (n=165)[2]		
Very familiar	8	5
Familiar	23	14
Somewhat familiar	66	40
Not at all familiar	68	41
How comfortable are you working within child care environments? (n=189)[2]		
Very comfortable	92	49
Comfortable	77	41
Uncomfortable	6	3
Very uncomfortable	1	1
I have never worked in a child care environment	13	7

[1]n is reduced for these questions due to missing responses

[2]n is reduced in these questions as the question did not apply to all respondents

Employment. The survey sample included occupational therapists from across Canada. In order to preserve anonymity, respondents were asked to indicate only what region they practiced in, as opposed to the specific province. In the final survey results, data from only two respondents from the Northern Region was obtained. To preserve anonymity both these responses were re-coded into the Central Region category. While occupational therapists from each region responded, over 40% were from the Eastern Region.

To explore employment patterns, participants were asked to describe their employment status and primary employer as well as the main duties of their current position. As indicated in Table 3, the majority of survey respondents (56%) indicated they were practicing full time, while less than half (40%) were practicing on a part time basis. Only 4% were not currently practicing as occupational therapists.

Respondents were asked to identify which of 15 categories best fit as their primary employer. Twenty three respondents (11%) selected 'other' as a response, and 21 of these 23 then provided a description of their employer. Most of these descriptions (n=19) were re-coded by the researcher into one of the predefined categories, leaving only four responses in the 'other' category. To facilitate more meaningful analysis, categories with less than 1% of the frequency were then re-coded to the other category (n=5). These included Mental Health Hospital/Facility (n=1), Industry/Manufacturing/ Commercial (n=1), Post Secondary Educational Institution (n=2), Assisted Living Residence (n=1) and Residential Care Facility (n=0). The exception to this were respondents who selected child care facility (n=2). This category was left intact due to its relevance in this study. Only 1% of respondents (n=2) were actually employed by child

care environments, another 41% of respondents worked exclusively in pediatric environments (children's hospital or school), while the remaining 59% worked in other settings.

In reviewing the primary responsibilities associated with respondents current position it was clear that the vast majority of respondents (67%) had clinical duties as their main area of responsibility. Most respondents indicated that their work environments were at least somewhat supportive of child care inclusion (91%). Data for all questions related to characteristics of respondents' work context is summarized in Table 4.

Table 4

Employment Characteristics of Respondents

	Frequency	Percent
Region of Practice (n=213)[1]		
Eastern (ON, QC)	88	41
Central/Northern (AB, SK,MB,YT,NU,NWT)	61	29
Atlantic (NL, NB, NS, PEI)	35	16
Western (BC)	29	14
Current Employment Status (n=222)		
Practicing full time	118	56
Practicing part time	85	40
Non practicing	9	4
Primary Employer (n=211)[1]		
Children's hospital/facility	58	28
Private practice	30	14
School/school board	28	13
General hospital	21	10
Rehab hospital/facility	18	9
Community health center	17	8
Association/ Government/ Para government	16	8
Other	11	5
Visiting agency/Business	10	5
Child care environment	2	1
Main Responsibility of Position (n=210)[1]		
Clinical	141	67
Consulting	57	27
Administration/ Management	8	4
Teaching/ Education	3	1
Research	1	1
To what extend does your current work environment/ practice support the inclusion of children with special needs in child care environments? (n=189)[2]		
A great deal	111	59
Somewhat	61	32
It does not	17	9

[1]n is reduced for these questions due to missing responses
[2]n is reduced in these questions as the question did not apply to all respondents

Respondents were asked to rank how frequently they provided services in nine different environments. 30 respondents indicated at least some of their practice took place in

'other' environments, with 27 subsequently providing a description of these other environments. 8 of these responses were re-coded into pre-existing categories. In addition it was noted that 11 participants had suggested that treatment was provided in other natural environments such as community recreation and sports facilities which had not been provided as a response category. The resulting percentages for each environment are identified in figure 2.

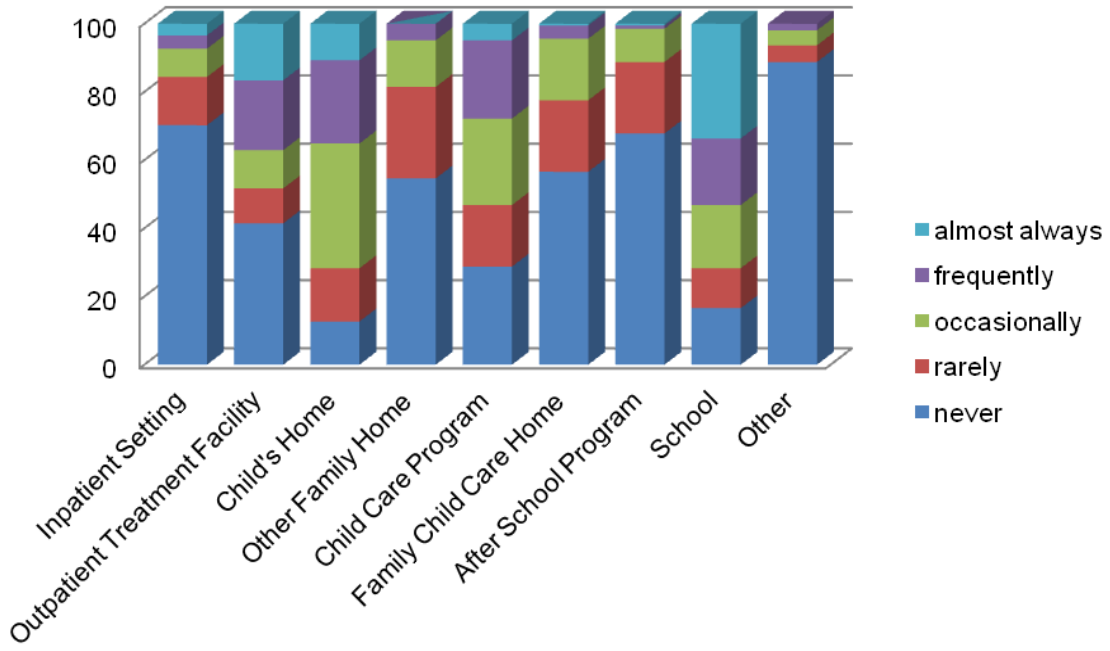

Figure 2. Percentage of respondents by frequency that specific service locations are used

Services were provided in each of the identified settings. The three categories with the overall highest frequency of use were child's home, school and child care programs. 88% of respondents indicated that they provided treatment in the child's own home at least rarely. Schools and child care programs were closely ranked, with 72% of respondents using schools, and 71% using child care programs at least rarely. While most respondents indicated that they used a variety of treatment environments, some

provided services almost always in one setting. As indicated in figure 3, 34% of respondents indicated they almost always provided services in school settings, with 17 % almost always in outpatient treatment facilities, and 11% almost always provided services in the children's own home, only 5% of respondents indicated that they almost always practiced in child care environments.

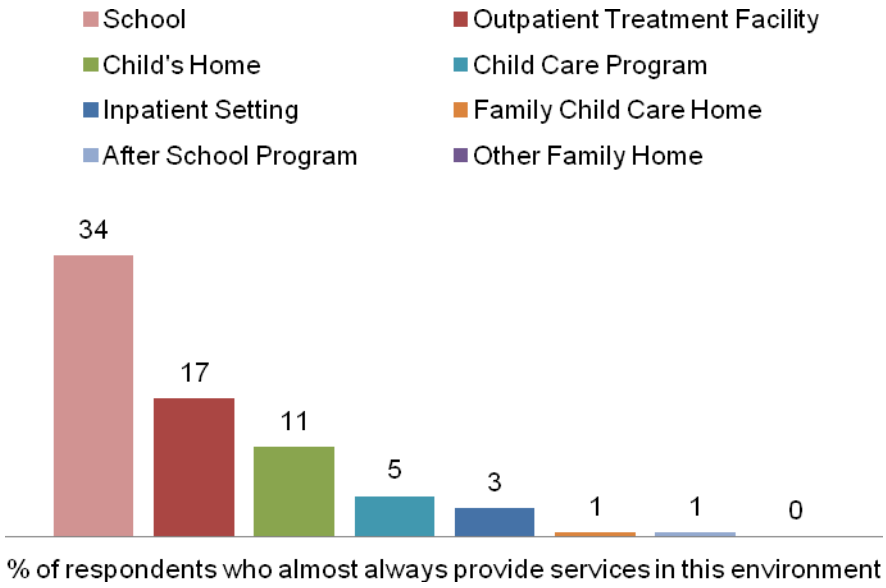

Figure 3. Percentage of respondents who provided services mainly in one treatment setting

For the purpose of this research, child care environments were defined to include child care programs, family child care homes and afterschool child care programs. Results indicated that 71% of respondents used child care programs, 43% used family child homes and only 32% used afterschool programs as treatment environments at least rarely. Table 5 provides a detailed listing of the frequency of practice in each child care environment.

Table 5

Frequency of use of Child Care Environments by Respondents

	Frequency	Percent
Child Care Program (n=205) [1]		
Never	59	29
Rarely	37	18
Occasionally	52	25
Frequently	47	23
Almost Always	10	5
After School Program (n=205) [1]		
Never	139	68
Rarely	43	21
Occasionally	20	10
Frequently	2	1
Almost Always	1	1
Family Child Care Home (n=205) [1]		
Never	116	57
Rarely	43	21
Occasionally	37	18
Frequently	8	4
Almost Always	1	1

[1] n is reduced for these questions due to missing responses

Caseload. In order to understand the types of clients that respondents had on their caseload, respondents were asked to describe the ages and diagnostic categories of their clients. The most common age groups identified as clients were preschool and school age, with approximately 89% of respondents seeing at least some children in these ranges. A summary of findings for these characteristics is provided in Table 6.

Table 6

Caseload of Respondents

	Frequency	Percent
Most Common Age Ranges of Clients (at least some) (n=209) [1]		
Preschool	185	89
School Aged	184	88
Pre-adolescents	147	70
Toddlers	127	61
Adolescents	125	60
Infants	86	41
Adults	56	27
Most Common Diagnostic Categories (at least some) (n=205) [1]		
Developmental Delay	201	98
Learning Disability	175	86
Neurology	162	79
Pediatric Mental Health	114	56
Acute Medical Surgical	65	32
Neonatology	52	25
Other	30	15

[1] n is reduced for these questions due to missing responses

Only 2% of respondents had caseloads made exclusively of children within one age range, suggesting that respondents generally seemed to have a caseload of mixed age groups. Since only 27% of respondents indicated they had adults as any portion of their caseload, it is apparent that the majority were practicing exclusively in pediatrics. Full distribution of caseloads by age is shown in figure 4.

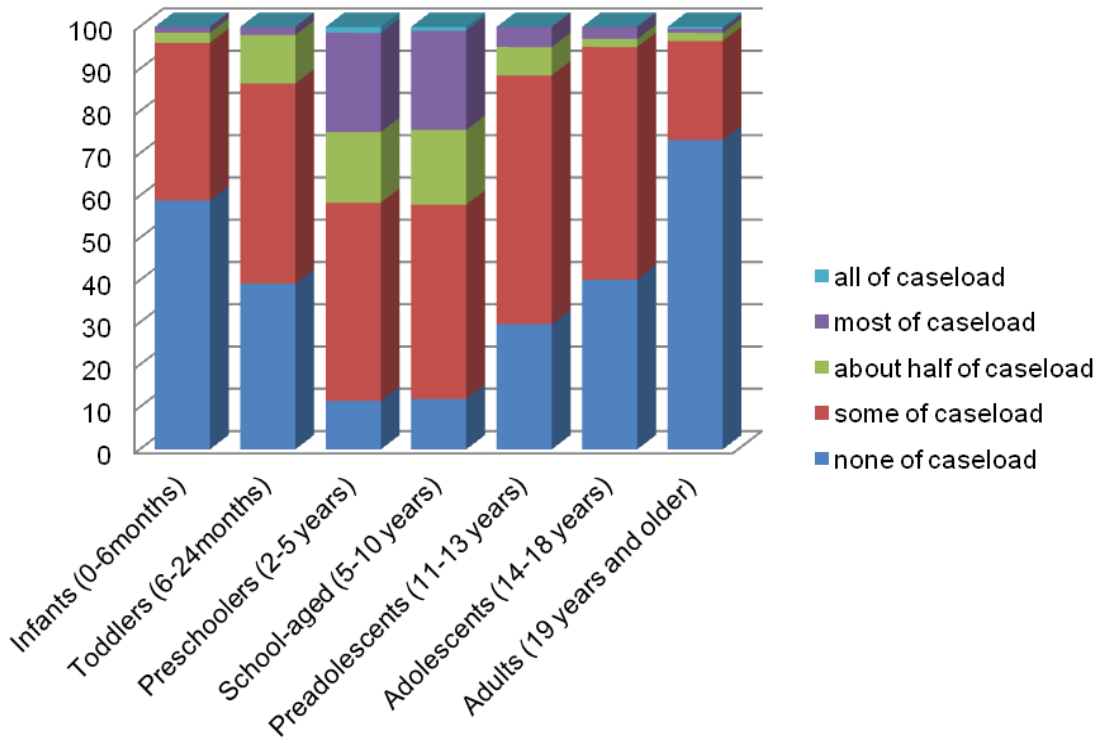

Figure 4. Percentage of respondents by amount of clients within specific age ranges on their caseload

Respondents were asked to identify how much (none, some, about half, most, or all) of their typical caseload fit 6 diagnostic categories. 43 respondents (27%) included 'other' as a response, with 36 then providing a description of their caseload. These descriptions were reviewed by the primary researcher, and with input from peers working in pediatrics as well as the secondary researchers, responses from 18 participants were re-coded into the predefined categories. Figure 5 provides a summary of the resulting responses.

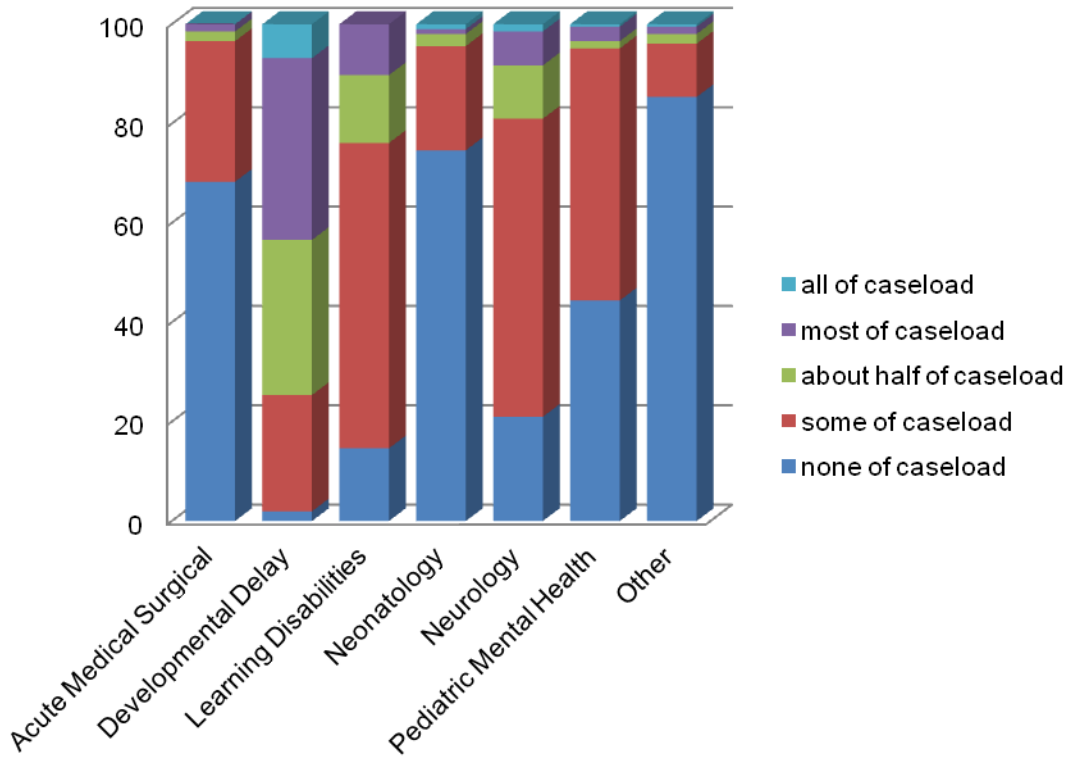

Figure 5. Percentage of respondents by amount of clients within specific diagnostic categories

Only 10% of respondents had a caseload that consisted entirely of one category, indicating that most participants had clients with a variety of diagnoses on their caseloads. The most common diagnostic categories were developmental delay and learning disabilities with 98% and 85% of respondents indicating they saw at least some clients in this group.

Overall, most respondents had been practicing for at least 10 years, and were prepared for practice with bachelor's degrees. While only a few had other formal non occupational therapy qualifications, almost all had relevant continuing education. Although almost 40% of respondents were practicing in the Eastern region, all regions were represented. While almost 40% of respondents had pediatric focused employers

such as children's hospitals or school boards, only 2 respondents were actually employed directly by a child care program. Most respondents had a caseload that consisted of mixed age ranges that were primarily pediatric. The most common age ranges were preschool and school aged, and the most common diagnosis were developmentally delayed, learning disabled and neurology. Results indicated that 71% of respondents used child care programs, 43.4% used family child homes and only 32% used afterschool programs as treatment environments at least rarely. While most respondents indicated using a variety of treatment environments, about 30% of respondents indicated that they practiced in schools most of the time, and 16% practiced in outpatient treatment centers most of the time.

Strategies Used to Support Inclusion

The first subquestion that was identified in this research project was "how frequently do occupational therapists use inclusive strategies to support child care inclusion?" In order to answer this question each domain from the SpeciaLink tool was reviewed to identify occupational therapy strategies that would support the overall concept of the domain. Respondents were then asked to rate how frequently they used each of the identified strategies. The next section of this paper will review each of the ten identified domains, as well as specific occupational therapy interventions that were identified as possible strategies to supports them. The frequency of use of each strategy will be presented to demonstrate which ones are actively used by Canadian occupational therapists to support child care inclusion. Following this, analysis will be completed to review the relationships between the use of specific strategies to characteristics of respondents and their clients.

Physical Environment. Occupational therapists recognize that it is the interaction between a person, their environment, and an occupation that creates occupational performance (CAOT, 1999). As such occupational therapists highlight the environment as a focus of change to improve occupational performance. Enabling change in the environment can reduce the demands on a child and support successful performance (and subsequently inclusion) in specific activities. From the perspective of child care inclusion, this means that occupational therapists would consider the physical (as well as the social, cultural and institutional) environment within child care settings and consider ways to change these environmental conditions to form more congruence with a child and/or the occupation. Some specific examples of possible interventions include changes to the built and natural environment including designing or building ramps, modifying the layout of furnishings to create safe and non distracting play spaces, adding grab bars to support transfers for children using mobility aids, etc. The SpeciaLink tool specifically suggests that things such as accessible classrooms, washrooms, hallways and outdoor play spaces contribute to an inclusive physical environment. Appropriate sound and light levels and evidence of use of principles of universal design are also noted as best practice. In order to assess Canadian occupational therapists' contributions to the domain of physical environment, respondents were asked to identify how frequently (never/rarely, occasionally, frequently, almost always) they assessed the physical environment of a child care program, or recommended adaptations to the physical environment or outdoor play area of a child care program. Each of these strategies were felt to support the concept of physical environment as defined by the SpeciaLink tool.

As demonstrated in figure 6, the majority of respondents assessed physical environments within child care programs (64%) and also recommended adaptation to the physical environments (67%) at least occasionally. Recommendations for modifications to outdoor play areas were given less frequently (46%).

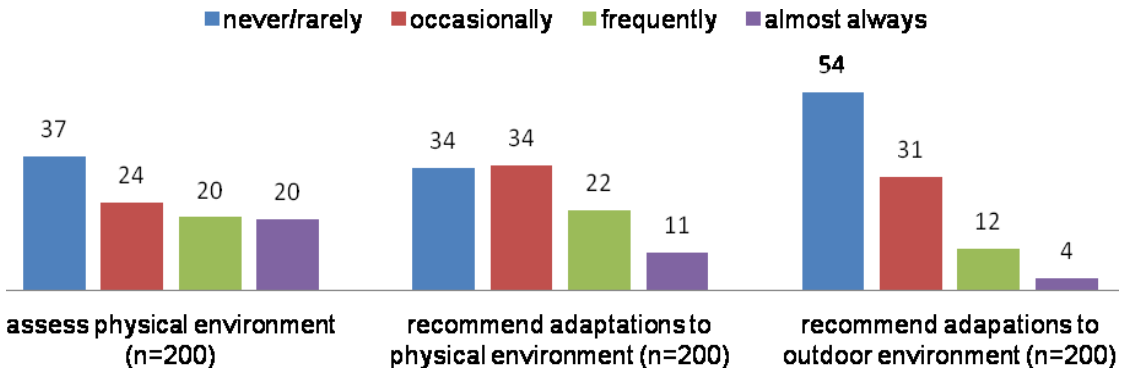

Figure 6. Frequency of use of strategies related to physical environment (% per response category)

Equipment and Materials. Providing and adapting specialized equipment and/or assistive technology is an established practice for occupational therapists. Specialized equipment includes a wide range of equipment and materials ranging from adapted utensils and play things, to more complex technology such as environmental control units and computer software. Adapting equipment and materials is recognized to reduce the demands of a particular occupation such that a child with special needs can participate with reduced effort. The SpeciaLink tool suggests that the equipment and materials present in a child care program influence successful inclusion. For example, they suggest that equipment and materials should be individualized to meet unique needs, that universal design principles should be evident, and that adapted gross motor

equipment, and adapted, specialized and assistive equipment should be present and integrated into all regular activities.

In order to assess whether or not Canadian occupational therapist are completing strategies to support this domain they were asked how frequently they assessed, provided, or adapted equipment or play materials for use in a child care environment and if they supported the use of assistive technology in a child care environments. As demonstrated in figure 7, respondents indicated that they do use each of these practices, with the most popular practice being recommending equipment or play materials. 65% of respondents indicated that they recommend equipment or play materials at least occasionally.

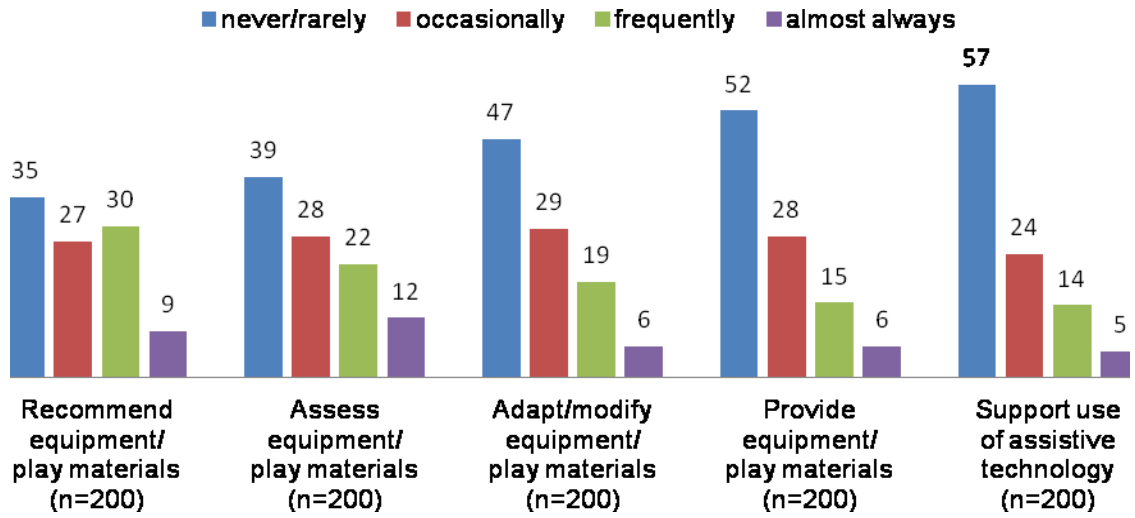

Figure 7. Frequency of use of strategies related to equipment and materials (% per response category)

Director/ Board of Directors and Other Similar Units. As previously noted, for the purposes of this research, two inclusion practices from the SpeciaLink were considered together as one domain (Direction and Inclusion, and Board of Directors and Other Similar Units). From the perspective of the SpeciaLink tool these two inclusion

practices recognized the important influence that both the director and board of directors have over the level of inclusion within a child care environment. The tool assesses the degree to which a director is an inclusion leader as evidenced by things such as recruiting board members who support inclusion, collaborating with community agencies, developing inclusive policy, and supporting education of staff and board members in inclusion. The tool also considers whether boards of directors and/or parent committees actively promote inclusion and if they have a parent of a child with special needs on the board of directors. Within an occupational therapy practice, therapists may recognize the influence of a director or board of directors has on the physical, social, and institutional environment within a child care environment. However, it is recognized that depending on their model of practice, therapists may or may not have interaction with, or influence over a director or board of directors. For example if a therapist provides services within a child care environment on request of a parent, as opposed to a child care program, they may have less opportunity to interact with leadership of the facility, as compared to being requested to provide services by the child care environment itself. This theme is echoed in the comments of one respondent:

> "I have worked within child care programs and services throughout my career. Unfortunately occupational therapy services typically have been seen as an adjunct, or support service and the profession has been outside the system regarding planning and development".

In order to assess contributions to this domain respondents were asked to identify how frequently they provided expertise to a director or board of directors, and how often they assisted with the development of inclusive policy or development of curriculum for

child care programs. These were interventions that would support the concepts presented in the SpeciaLink tool. Results of these questions are displayed in figure 8 below. While each of these strategies was used by respondents, compared to other strategies, they were among the least frequently used overall. 29% of respondents indicated that they provided expertise to a director or board of directors at least occasionally, while only 18% and 10% had input into curriculum development and policy development respectively.

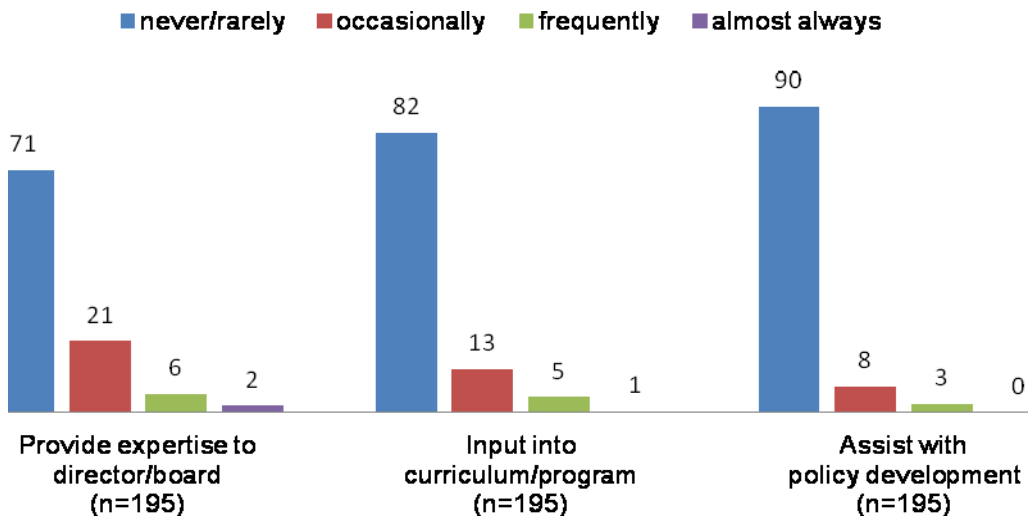

Figure 8. Frequency of use of strategies related to the director and inclusion and board of directors and other similar units (% per response category)

Staff Support. The SpeciaLink tool identifies staff support as a key practice to support inclusion. Staff support reflects the degree to which consultative support is available and flexible to the child care programs needs as well as the presence of specialized teachers or teachers with advanced qualification for inclusion. It also considers the ratio of children to staff including the use of one-to-one staff to support children with special needs. Each of these factors are influenced by the general system of care as well as financial and human resources. These factors are not as likely to be influenced directly by individual occupational therapists practicing in child care

environments. Despite this it is recognized that occupational therapist often do recommend additional supports for children, and provide support to specialized inclusion workers or one-to-one supports for children with special needs.

In order to assess contributions of occupational therapists to the staff support domain respondents were asked to identify how frequently they had input into the allocation of staffing resources to support children with special needs in a child care environment. As indicated in figure 9, while some respondents used this frequently or occasionally, most respondents (77%) never or rarely had input into allocation of staff. As previously noted, this is not entirely unexpected, given that most therapists tend to have little influence on broad systemic issues such as human and financial resources.

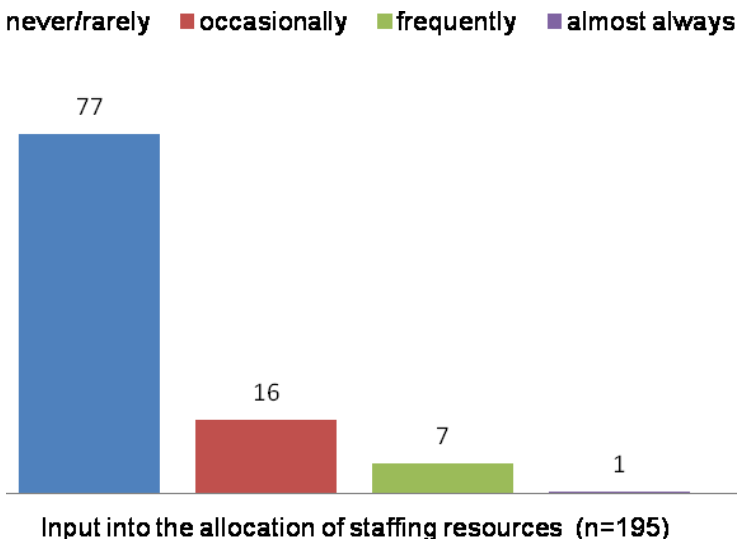

Figure 9. Frequency of use of strategies related to staff support (% per response catagory)

Staff Training. The Canadian Model of Client-Centered Enablement describes how occupational therapists use specific skills, referred to as enabling skills, to advance health, well-being and justice through occupation (CAOT, 2007). One of these enabling

skills is educating, which focuses on facilitating learning through doing (CAOT, 2007). In child care environments, occupational therapists may use education with clients, families, or parents to support occupational performance by a specific child, or all children in the center. Licsw and colleagues (2007) reinforce that occupational therapists are natural partners in the education and training of caregivers to support them in providing quality care. While therapists' goals may be focused on change for a specific client, they frequently engage other parties that can be taught how to enable occupation. By suggesting that programs with staff who have advanced qualifications in special needs/inclusion, or who provide and support training for staff are generally more inclusive, the SpeciaLink tool recognizes staff training as a key determinant of inclusion.

While occupational therapists have little influence over the formal qualifications of child care providers, they are able to offer support to child care programs by providing educational materials, or training to child care providers to support inclusion. In the study, respondents were asked to identify how frequently they provided resource materials, individual and/or group training for child care providers. This was helpful to determine if occupational therapists supported the domain of staff training. As demonstrated in figure 10, respondents indicated that they do use each of these strategies, with the most frequently used strategy being providing resource materials to child care providers. 69% of respondents indicated that they provide resource materials at least occasionally.

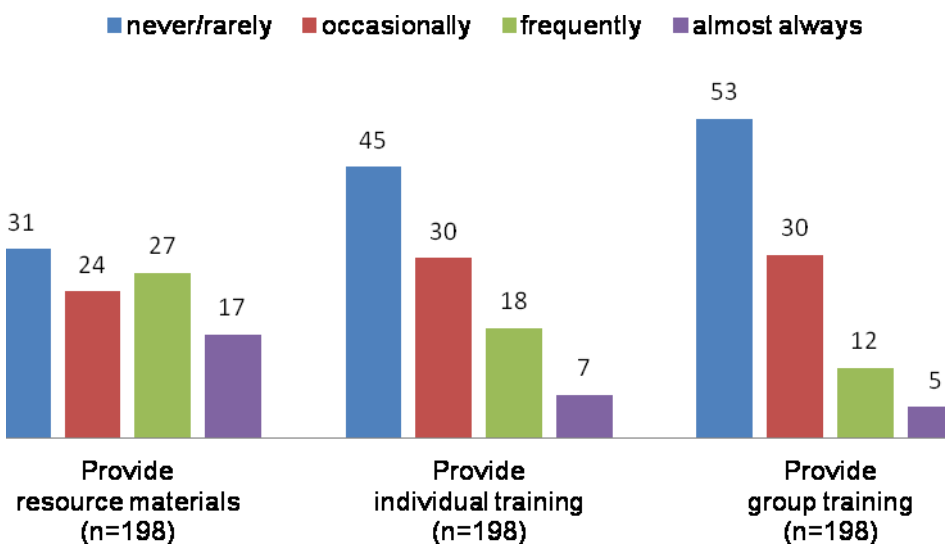

Figure 10. Frequency of use of strategies related to staff training (% per response catagory)

Therapies. The SpeciaLink tool identifies therapies (specifically physiotherapy, occupational therapy, speech and language and behavioral consultation) as one of the key determinants of inclusion. The tool does recognize, however, that "the availability of therapeutic interventions, their adequacy, frequency and duration are issues beyond the control of child care centers" (Irwin, 2005 p. 9). Therefore in their efforts to assess therapies they focus on evaluating the level of collaboration among therapists, parents, and staff. They also consider the degree to which therapeutic goals are provided in group settings and are embedded into the regular activities and routines of the program.

The adequacy, frequency and duration of therapy *are* things that are typically directly under the control of occupational therapists who are working to support a child with special needs in a child care program. The focus of this study is to investigate the nature of therapy provided to support inclusion. In this question specifically, respondents

were asked to identify how frequently they completed activities to support those practices that were identified within the SpeciaLink tool. These included consulting with, sending consultation reports to staff, observing/assessing children in child care environments, and recommending new or adapted activities or routines. As demonstrated in figures11 and 12, respondents indicated that they do use each of these strategies, with the most common strategy being recommending new or adapted routines/activities. 77% of respondents indicated that they did this on at least an occasional basis. Consulting with child care staff was done at least occasionally by 73% of respondents followed by 63% who observed children in child care environments, and 62% who forwarded reports to child care staff.

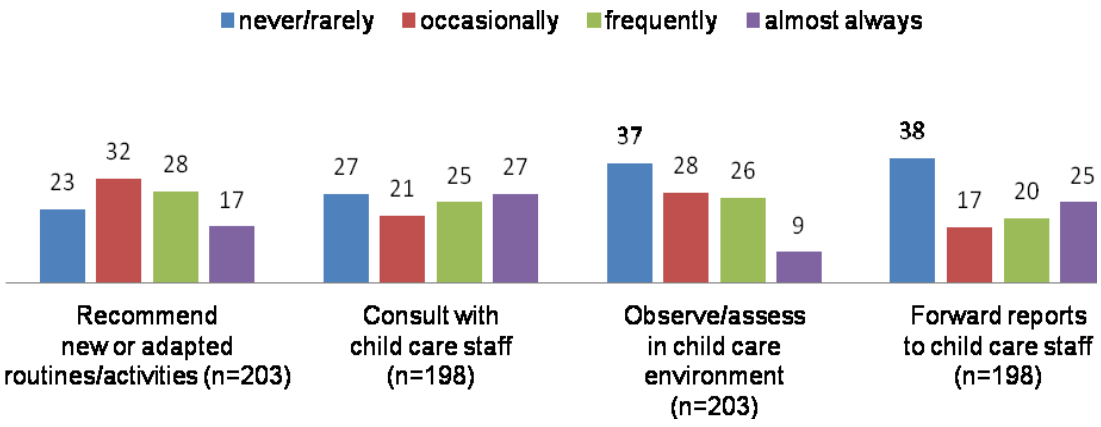

Figure 11. Frequency of use of strategies related to therapies (% per response catagory)

Within the context of child care environments, respondents indicated that they participated in both pull-out type interventions (where a child is removed from the group activity to participate in therapeutic interventions) as well as treatments that are embedded into the context of the child care program/activities. The SpeciaLink tool indicates that treatment activities that are embedded into regular group routines and

activities obtain a higher level of inclusion than pull-out type approaches. Figure 12 shows that respondents did use the preferred approach more often.

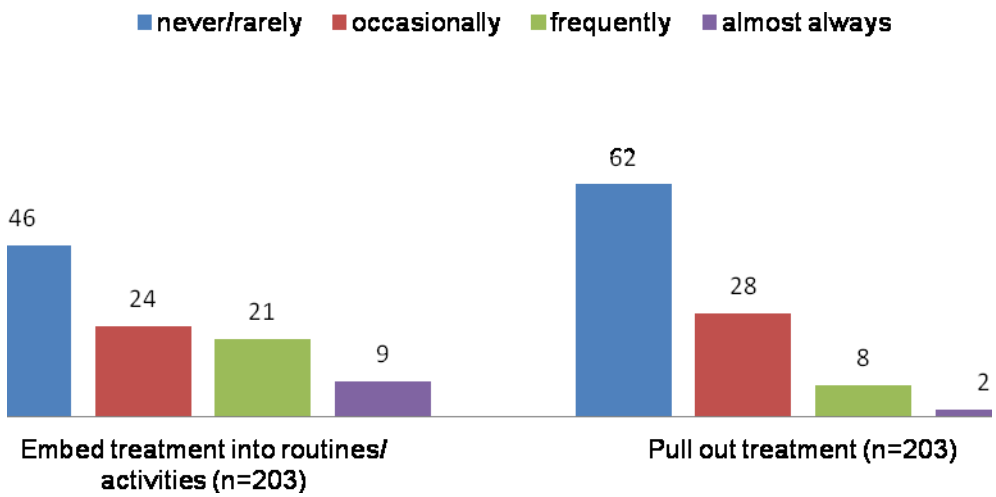

Figure 12. Frequency of use of embedded versus pull-out treatment approaches (% per response catagory)

Individual Program Plans. A key component of the occupational therapy process of care is negotiating treatment objectives and developing a treatment plan. The Canadian Practice Process Framework suggests that this includes "collaborating to identify priority occupational issues" and "negotiating agreement on occupational goals, objectives and plan within time, space are resource boundaries, and within contexts" (Townsend & Polatajko, 2007 p. 251). While occupational therapy practice clearly identifies individual goal setting and planning as a key component of practice, child care settings typically plan curriculum based on the general learning needs of all children, as opposed to individualized plans for each child enrolled. The SpeciaLink tool recognizes the value of individualized planning for children with special needs. The tool assesses the degree to which individual plans are in place for children with special needs, the level

of consultation involved in developing such plans, and the degree to which goals are embedded into regular group activities and monitored by staff.

In order to assess contributions to the domain of individual program plans, respondents were asked to identify how frequently they shared and/or collaboratively set treatment goals with child care providers. As demonstrated in figure 13, both strategies were employed by respondents. 70% of respondents indicated that they shared treatment goals with child care providers at least occasionally, and 67% set goals collaboratively with child care staff at least occassionally.

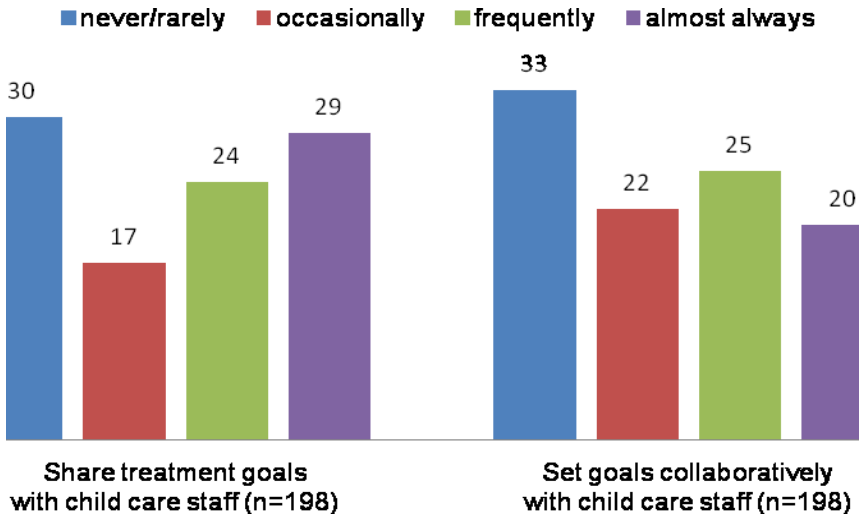

Figure 13. Frequency of use of strategies related to individual program plan (% per response catagory)

Parents of Children with Special Needs. While the focus of occupational therapy with children is typically enabling occupational performance in children, family centered therapy recognizes the important role that families play in a child's development. From a child care perspective, the SpeciaLink tool also recognizes the importance of including parents of children with special needs in service delivery. Using the SpeciaLink tool, centers are identified as more inclusive if the director actively

promotes involvement of parents of children with special needs in team meetings, regular activities of the center, goal setting and the like. In order to determine if occupational therapists are contributing to this aspect of child care inclusion respondents were asked to identify how frequently they consulted with parents regarding their child's inclusion in child care. Figure 14 indicates that 71% of respondents consulted with parents at least occasionally.

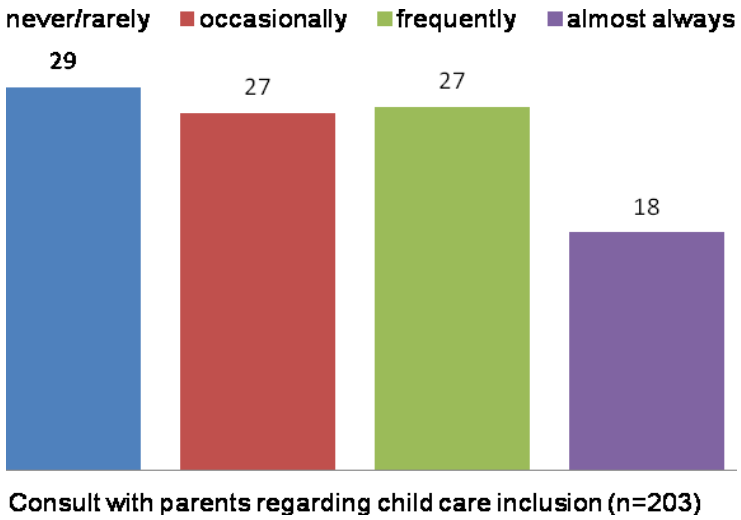

Figure 14. Frequency of use of strategies related to parents of children with special needs (% per response catagory)

Involvement with Typical Children. Often, children with special needs are excluded from participating in group play with typically developing peers. This may be due to a lack of social or physical abilities, or because of exclusion by their peers (Missiuna & Pollock, 1991). The consequence of this limited play experience is reduced opportunities to learn valuable social skills, which in turns leads to further isolation at later stages of development. This concept is reflected in one of the core inclusion practices in the SpeciaLink tool 'involvement with typical children'. The tool suggests that inclusive child care programs support interaction between children with special

needs and their typically developing peers. This is demonstrated in centers by observing that children with special needs are included in group social play most of the time, and that staff use systematic techniques such as scripting, cooperative learning and valued object sharing to promote social inclusion. The SpeciaLink tool suggests that observing the frequency and intensity of play that involves both children with special needs and typically developing children will help assess the level of involvement. The occupational therapy profession also clearly understands the negative impacts of social exclusion, and often develops treatment plans that focus on learning social skills.

In order to determine if respondents are contributing to this domain they were asked to identify how often they supported interactions between children with special needs and their typically developing peers in a child care environment. As demonstrated in figure 15, 70% indicated that they did this at least occasionally – and almost half of the respondents did so frequently or almost always.

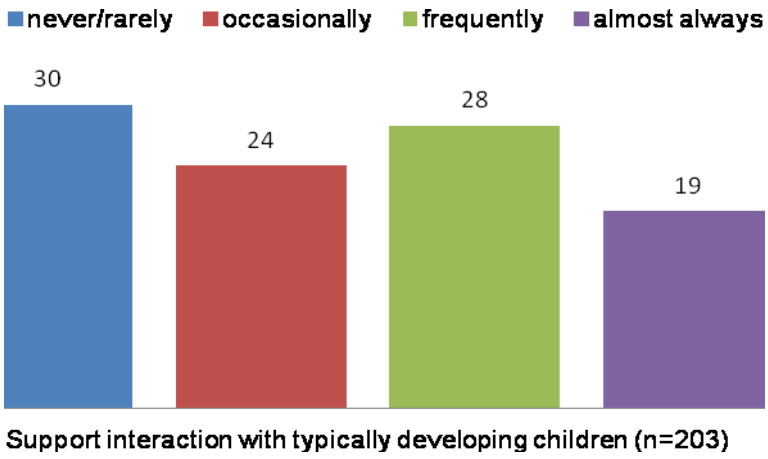

Figure 15. Frequency of use of strategies related to involvement of typical children (% per response catagory)

Preparing for Transition to School. For families of children with special needs, transitioning between early childhood setting and they school system is often a challenging and stressful period. During this time families must,

> negotiate relationships and communication between agencies and different models of service delivery, establish their role in the process and advocate for their child's needs. As children make these transitions, the nature of their occupations changes, requiring the child and family to learn new skills, habits, and roles. (Myers, 2008, p.212)

The SpeciaLink tool specifies that child care centers who implement strategies to support successful transition to the school system are more inclusive. The tool recommends that staff should actively collaborate with teachers and parents to design and implement strategies, hold regular case conferences with school staff, and with parental consent share information with the school system.

Occupational therapists have a unique perspective and potential contribution to transition planning (Myers, 2006). This includes working with care providers to prepare for changes in occupations such as roles and routines that will occur in the new school setting (Myers, 2008). Using activity analysis and environmental modification the therapist can prepare the child and care providers for participation in the new environment (Myers, 2008). While the role for occupational therapists in the transition to school may be quite broad, in this context the concern is with how occupational therapists are working with the child care program to support the transition to school. Therefore respondents were asked to identify how often they attended a meeting with child care providers regarding transition to school. As demonstrated in figure 16, 63% indicated that they did this at least occasionally.

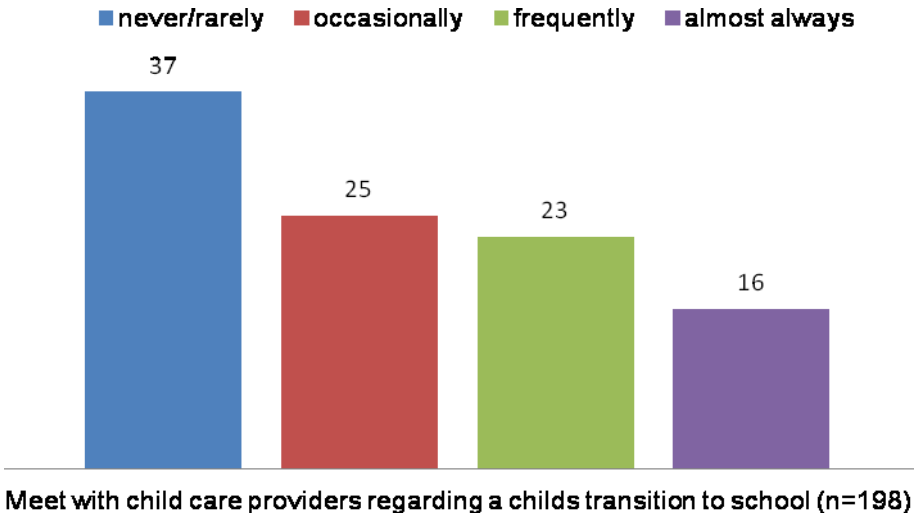

Figure 16. Frequency of use of strategies related to preparing for transition to school (% per response catagory)

Overall Usage of Inclusive Strategies. As demonstrated in figures 5-16, Canadian occupational therapists engage in a number of strategies that support child care

inclusion. All identified strategies were used, with each strategy used to a different extent. Some strategies in particular showed strong usage. Over half of all respondents indicated that they consulted with, and shared treatment goals with staff in child care environments frequently or almost always. Also, just fewer than 50% of respondents indicated that they frequently or almost always provided resources, forwarded reports to, and set goals collaboratively with child care staff. Supporting interactions between children with special needs and their peers, recommending new or adapted routines/activities, and consulting with parents about child care inclusion were also among the most common strategies. Almost half of participants completed these tasks frequently or almost always.

The overall frequency of use of these strategies within the context of the broader domains was also considered. In order to determine which domains were used most often by respondents, an average was calculated for each domain. These averages demonstrate how often strategies within the domain were used at least on an occasional basis.

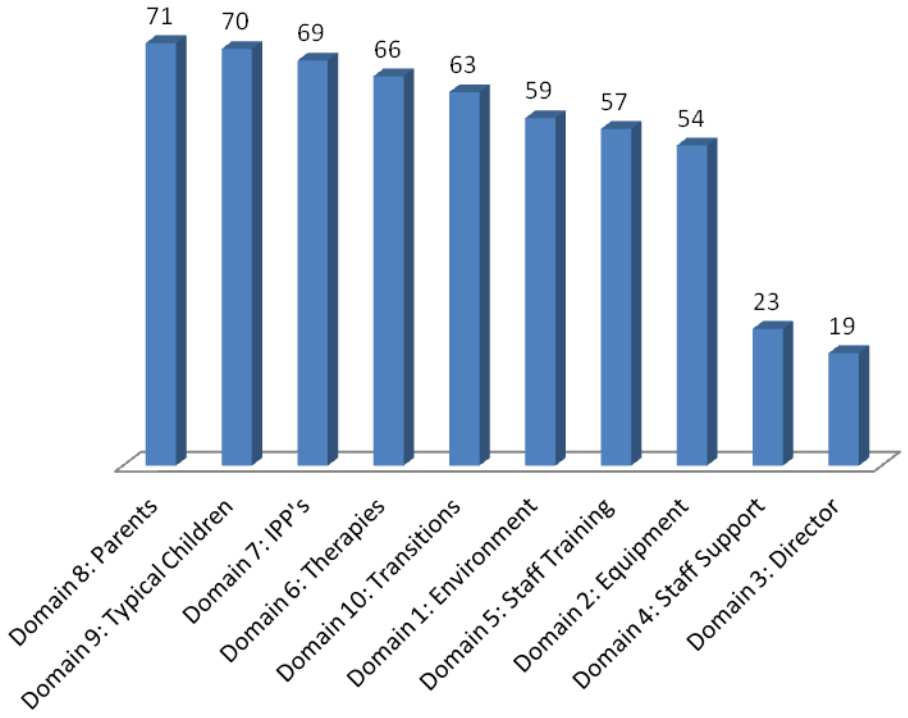

Figure 17. Frequency of at least occasional use of each domain (% per response catagory)

As demonstrated in figure 17, most of the domains were used between 55%-70% of the time at least occasionally. The exception to this are the domains related to staff support and director, which were used much less frequently.

Effect of Respondent and Client Characteristics on Usage

To support the research subquestion which aimed to identify the frequency of use of inclusive strategies, further exploration of effects of specific variables on use of inclusive strategies was completed. Specifically, data was explored to identify whether or not characteristics of respondents of their employment or client population were in any way correlated with their use of inclusive child care strategies. As previously described, data was collapsed from five response categories into three as follows:

New Frequency Rating Categories	Original Frequency Rating Categories
Rarely	Never, Rarely
Occasionally	Occasionally
Frequently	Frequently, Almost Always

Characteristics of respondents' education and experience, and employment, as well as client characteristics were compared by frequency of use of each strategy to identify any significant correlations using a chi square test of association.

Characteristics of Respondents. To allow investigation of possible association between the educational background of occupational therapists and the frequency with which they used inclusive strategies, several variables were examined. These included the type of occupational therapy qualifications, whether or not the respondent held additional qualifications (other than occupational therapy), and whether or not the respondent had other relevant continuing education. When investigating the impact of the type of occupational therapy qualification, respondents were categorized in two groups; those who had undergraduate education (diploma, certificate or bachelors degree in occupational therapy) and those who had graduate level education (masters or doctorate). Using three frequency categories of rarely, occasionally or frequently, a chi square test was performed to determine if respondents with undergraduate education responded differently than those with graduate level occupational therapy education with respect to their use of each of the 29 inclusive strategies. A significant difference was evident with only one inclusive practice: respondents with graduate level education were more likely than those with undergraduate level education to consult with parents regarding child care (61% versus 40%, χ^2=6.764).

Respondents were also asked to identify whether or not they had additional formal education that had assisted with including children in child care environments. 18% of respondents did hold additional non-occupational therapy qualifications. These included qualifications such as bachelors of education, certificate/diploma/bachelor degree in early childhood education/studies, etc.. When respondents with and without additional non-occupational therapy qualification were compared with regard to their use of the inclusive practices, statistically significant results were noted for 5 of the 29 inclusive practices. Table 7 identifies the specific strategies that were likely to be used by occupational therapists with additional non-occupational therapy qualifications on a more frequent basis.

Table 7

Strategies Where Respondents with Additional Non-Occupational Therapy Qualifications were Significantly Different from Those Without Additional Qualifications

Inclusive Strategy	χ^2	p
Provide treatment in a child care environment while the child was not involved in a group activity, or with other children (e.g. pull-out therapy)	12.595	<0.002
Provide input into the overall curriculum or programs of a child care environment	9.628	<0.008
Recommend adaptations to the outdoor play area of a child care program	8.547	<0.014
Adapt or modify equipment or play materials in a child care environment	8.191	<0.017
Recommend new activities or routines, or adaptations to current activities/routines in a child care environment	5.988	<0.050

Notably, the respondents with additional educational credentials were more likely to use pull-out therapy, which SpeciaLink suggests is less inclusive practice.

Respondents were also asked to identify whether or not they had received continuing education relevant to their work with children. 90% of respondents indicated they had completed other relevant continuing education. This included a broad range of courses and workshops, with many respondents indicating that they had completed more than one training. When respondents with and without continuing education were compared with regard to their use of the inclusive practices, there were no statistically significant differences. The lack of significant differences may be because such a high number of respondents had relevant continuing education; differences in practice would have to be quite marked to show significance.

To identify possible correlations related to experience of respondents, years of practice was also divided into two categories: practice for more than 10 years, and practice for less than 10 years. All 29 inclusive strategies were analyzed for group differences, and results indicated that only one strategy demonstrated a significant correlation with practice experience. 80% of respondents with more than 10 years experience asked if children were attending child care as a part of their assessments, compared with only 64% of respondents with less than 10 years experience ($\chi^2 = 8.035$, $p<0.018$).

Employment Characteristics. The next main category of variables reviewed was related to the employment characteristics of respondents. These included region of practice, hours of work, primary employer, main responsibility of the position, and treatment settings utilized. Respondents were categorized into four groups based on their region of practice (Atlantic Canada, Eastern Canada, Central/Northern Canada and Western Canada). All 29 inclusive strategies were tested, and chi square results indicated

no significant association between region of practice and use of inclusive strategies. Respondents also indicated whether they were employed on a part time basis, full time basis, or if they were non-practicing. After eliminating those not currently practicing, chi square analysis showed no significant difference between groups based on employment status.

Respondents indicated their primary employer from a choice of 15 categories. In order to allow sufficient cases to perform chi square analyses, all responses were collapsed into two categories: those who had employers that focused on pediatric caseloads (school/school board, child care environments, children's' hospital) and other (general hospital, rehab hospital/facility, industry/manufacturing/commercial/private practice, assisted living residence, community health center, mental health hospital/facility, post secondary educational institution, association/government/ paragovernment, visiting agency/business, residential care facility). Chi square analyses were performed to determine if respondents with pediatric focused employers differed from than those with non-pediatric focused employers with respect to their use of inclusive practices. The test results indicated no significant differences for any of the inclusive practices.

Respondents were asked to indicate the main responsibilities of their current position. All responses were collapsed into two categories, those whose responsibilities were mainly direct clinical work, and those who had other responsibilities as main (including research, teaching/education, consulting, admin/management, other). A chi square test was performed to determine if respondents with mainly clinical responsibilities differed from those with other main responsibilities. Significant

differences were identified for three strategies. Respondents with primarily clinical responsibilities were more likely to ask if children were attending childcare (71% versus 47%, χ^2= 10.982, p=<0.0004), and were more likely to recommend attending child care (34% versus 18%, χ^2= 7.228, p=<0.027). In contrast, those with non-clinical main responsibilities were more likely to have input into the overall curriculum or program development (28% versus 13%, χ^2= 8.8912, p=<0.012).

The final employment characteristic reviewed was treatment setting. Respondents were asked to indicate how frequently they provided treatment in various environments. Responses for each environment were collapsed into three categories, those who never treated clients in that setting (previously never and rarely), those who occasionally used the setting, and those who frequently used that treatment setting (previously frequently and almost always). Inpatient settings, outpatient treatment facilities, child's home, other family home, child care program, family child care homes, after school child care programs, and schools were each analyzed individually. Overall, treatment environment seemed to have a significant impact on the degree to which many inclusive strategies were used. As demonstrated in Table 8 all of the identified treatment settings showed correlations between the frequency of respondents' use of the setting and the frequency of use of at least some inclusion strategies. For many strategies there was a directional relationship where increased use of a treatment environment correlated with increased (or decreased) use of specific inclusive strategies. Natural environments such as child care programs, family child care homes, child's own home and other family homes demonstrated the most significant correlations, with each having at least 65% of the strategies (19 of 29) demonstrate significance. In almost all of these strategies (97% or

89 of 92 strategies) there was a clear relationship that respondents who practiced frequently in these settings were more likely to use the identified inclusive strategies than those who never practiced in the setting. Respondents who practiced in school and inpatient settings were different. That is, respondents who practiced more in these settings were less likely to use the strategy than those who never practiced there.

Table 8 highlights that respondents who use child care programs and family child care programs frequently are the 'most inclusive', practicing almost 100% of the strategies more frequently than those who used these setting less often. A detailed description of finding for each strategy by treatment environment can be found in Appendix D.

Table 8

Summary of Significance by Treatment Environment

Treatment Environment	# of strategies where use of environment was correlated with use of strategy ($p<0.05$)	% of significant strategies where respondents who frequently used setting were higher than those who never used setting	
Child Care Program	26	100%	(26/26)
Family Child Care Home	25	100%	(25/25)
Child's Home	22	95%	(21/22)
Other Family Home	19	90%	(17/19)
School	13	8%	(1/13)
After School Child Care Program	7	86%	(6/7)
Outpatient Treatment Facility	7	71%	(5/7)
Inpatient Setting	5	0%	(0/5)

Client Characteristics. In order to determine the influence of client age on use of inclusive strategies, respondents were asked to indicate how much of their caseload comprised of specific age ranges. Responses for each age range were collapsed into three categories, those whose caseloads had 'none' of the age range, 'some' of the age range, or 'most' of the age range.

New Age Categories	Original Age Categories
none	none
some	some
most	About half, most, all

Overall, the age ranges in the respondents' caseload was often correlated with use or disuse of specific strategies. In particular the age ranges before school entry seemed to have the most number of strategies with significant correlations, with each having at least 65% of the strategies (19 of 29) demonstrate significance. There also appeared to be some patterns related to age ranges. In particular respondents with more toddlers and preschoolers on their caseloads used the inclusion strategies more frequently than respondents who had no toddlers or preschoolers on their caseload. By contrast, respondents who had more school aged, preadolescents or adults on their caseload were less likely to use most inclusion strategies. Table 9 provides a summary of the data which describes general patterns related to age categories. Detailed findings regarding each age range and individual strategy are provided in Appendix E.

Table 9

Summary of Significant by Age Range

Age Range	# of strategies where amount of caseload in age range was correlated with use of strategy ($p<0.05$)	% of significant strategies where respondents with mostly clients in the age range used that strategy more than those with no clients in the age range	
Infants	23	26%	(6/23)
Toddlers	19	95%	(18/19)
Preschoolers	22	95%	(21/22)
School aged	17	6%	(1/17)
Pre-adolescents	11	0%	(0/11)
Adolescents	2	50%	(1/2)
Adults	6	0%	(0/6)

The second client characteristic examined was diagnosis. Respondents were asked to indicate how much of their caseload/work was comprised of clients within seven diagnostic categories. Again, in order to make meaningful comparisons, the response options of "about half", "most" and "all" were collapsed into "most", creating three response options rather than five. Each of the following diagnostic categories were tested individually; acute medical surgical, developmental delay (including autism), learning disabilities, neonatology, neurology, pediatric mental health, and other. As with age of clients, the number of clients within specific diagnostic categories was also found to have some significant correlations with the use of inclusive strategies. As compared with age of clients, there appeared to be less of a relationship, with only four of seven diagnostic categories holding significant correlations (as compared to seven of seven in age). Within these four categories, fewer strategies were significant, suggesting that client diagnosis has less impact on an occupational therapists' use of inclusive strategies than

age, or treatment environment. There were no significant correlations for learning disabilities, pediatric mental health or other.

A clear trend for increasing use of inclusive strategies with increased numbers of clients with developmental delay and neurology was identified. That is, for 16 of the 17 inclusion strategies (94%) that were significantly correlated, respondents with caseloads consisting of mostly developmentally delayed clients were most likely to use the strategy. The reverse trend is evident for respondents with mostly acute medical surgical and neonatology clients; that is in 15 of 16 cases (94%) respondents with mostly clients in these categories were least likely to use the strategy. This is explained in the comments of one respondent who noted, "I work in neonatology with inpatients only. Working with child care facilities is NOT part of my daily work." Table 10 provides a summary of the number of practices that were found to be significant for each diagnostic group and identifies the number of strategies where a trend for increasing or decreasing use was found. A detailed description of finding for each significant strategy by diagnostic category is presented in Appendix F.

Table 10

Summary of Significance by Diagnostic Category

Diagnostic Category	# of strategies where amount of diagnostic category was correlated with use of strategy ($p<0.05$)	% of significant strategies where respondents with mostly clients of the diagnostic category used the strategy more than respondents with no clients in the diagnostic category	
Acute Medical Surgical	6	0%	(0/6)
Neonatology	10	10%	(1/10)
Neurology	4	75%	(3/4)
Developmental Delay	13	100%	(13/13)

Referral Patterns

The second research subquestion posed in this study sought to investigate whether or not occupational therapists referred children on their caseloads to child care environments, and to identify factors that influenced their decision to refer/not refer. It is recognized that the use/disuse of many inclusive strategies as reported in the previous section is likely shaped by employer policy and job structure. These factors, however, should not influence respondents' decisions to refer/not refer to child care programs to the same degree. It was anticipated that examination of the factors which influence an occupational therapists' decision to refer or not refer a child, and actual patterns of referral may provide some insight into whether or not they feel that attendance in child care is of value for a child. Respondents were asked to identify whether or not there were children on their caseload who were not currently attending a child care environment, but who would benefit from attending. Instructions clarified that children who were over the age of 14 could be excluded, as it was assumed that they would not be eligible to attend due to their age. As shown in figure 18, the vast majority of respondents (79%) indicated that at least some clients who were not currently attending would benefit from attending. Fourteen percent of respondents were unsure as to whether or not clients would benefit from attending a child care environment.

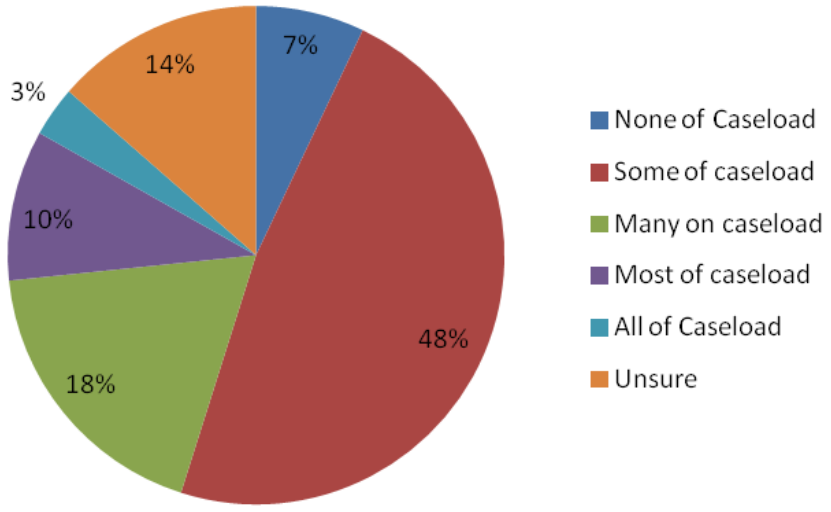

Figure 18. Percentage of respondents who report that portions of their caseload would benefit from attending child care environment

Respondents were also asked to indicate how often they recommended that a child on their caseload attend a child care program. Figure 19 demonstrates that 58% of respondents referred clients to child care programs at least occasionally, however 42 % never or rarely recommended clients attend child care environments.

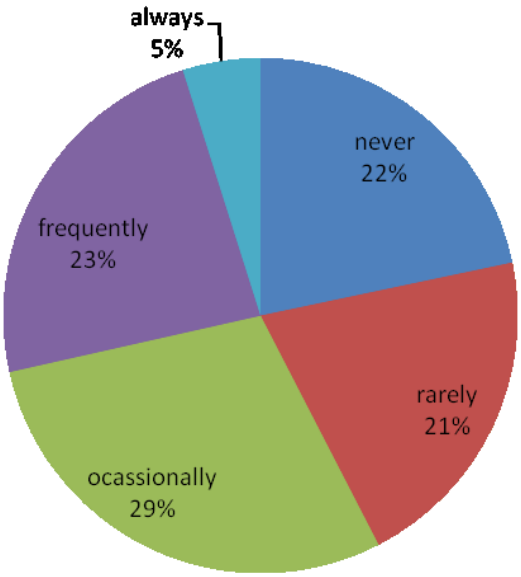

Figure 19. Frequency that respondents recommended children attend child care environments

Respondents were asked to identify which factors influenced their decision to refer a client to a child care environment. A list of 13 factors was provided, with respondents able to select multiple factors. Not surprisingly, the most common reasons for referral were respondents' beliefs that attending would be beneficial for their clients through supporting either optimal developmental in general, or in supporting specific occupational therapy goals. Respondents own professional experiences and knowledge of child care programs also strongly influence referral. Unexpectedly, the factors that had the least influence on whether or not a child was referred to child care were the academic and continuing education of respondents. Thirteen respondents noted that "other" factors influenced their decision to referral to child care environments. In five instances, referring children to child care programs was not applicable to the respondents' caseload or job responsibilities. Four respondents mentioned families' needs for respite,

daytime care or additional developmental support as a factor in referring. The frequency with which all factors were selected is identified in Table 11 below.

Table 11

Factors Which Promoted Referral to Child Care Environments

	Frequency	Percent
Factor influencing Referral (n=222)		
Benefits to the child's general development (social, emotional, cognitive, physical, etc.)	142	64
Benefits to the children specific needs (i.e. support for occupational therapy goals)	118	53
Professional experiences with previous clients	111	50
Knowledge of child care programs in my area	104	47
Resources are available to support inclusion of children with special needs	93	42
Personal experiences with child care programs	88	40
Accessibility of child care programs to families (cost, location, hours of operation, transportation, etc.)	82	37
Families request for referral	77	35
Child care providers knowledge/skill	69	31
Relationships with child care providers	56	25
Continuing education (completed by respondents)	55	25
Academic preparation (completed by respondents)	34	15
Other factors	13	6

Respondents were also asked to identify factors which deterred them from referring to child care environments. A list of 20 possible factors was identified, with respondents able to select multiple factors. Other than the fact that the child already attended child care (and therefore did not require a referral), the most common reason for not referring a child were related to factors about the child care program/staff and their lack of suitability for children with special needs. This is interesting, as obviously some child care programs were through to be meeting needs for some children with special needs (47% indicated children were already attending). In addition almost half of the

respondents indicated that they did not refer because a parent had either not requested, or consented to a referral. It is also useful to note that forty respondents selected the 'other' response; with about half of these indicating in comments that referring clients to child care programs was not within the scope of their responsibilities. For example, "This is not appropriate for the area of practice I am working in", "not the purpose of the occupational therapy/ physiotherapy consult", "I don't refer to child care environment, parents do this". Two respondents indicated that children on their caseload were medically fragile and not appropriate for child care settings. The percentage of respondents who indicated that various factors deterred referring to child care is identified in Table 12.

Table 12

Factors which Deterred Respondents from Referring to a Child Care Environment

	Frequency	Percent
Deterring Factors (n=222)		
Child already attending a child care program	106	48
Child care programs that are available do not meet families needs (i.e. location, cost, hours of availability, transportation, etc.)	90	41
Families have not requested referrals	57	26
Parents have not consented to referral	54	24
Child care programs do not have resources required to include children with special needs	42	19
Other	40	18
Child care programs are unsuitable for other reasons	37	17
Child Care programs do not accept children with special needs	35	16
Child care providers do not have enough knowledge about children with special needs	29	13
Child care providers are not skilled at including children with special needs	28	13
I didn't see any benefits to the child	22	10
Personal experiences with child care programs	22	10
professional experiences with child care programs	20	9
I didn't think about it	17	8
Child care programs do not support occupational therapy treatment goals	15	7
Relationships with child care providers	10	5
I don't know if there are child care programs in my area	8	4
There are no child care programs in my area	8	4
Continuing education	2	1
Academic education	1	1

Promoting Inclusive Child Care

The third subquestion posed in this study sought to identify both barriers to inclusive practice and opportunities for occupational therapists to promote child care inclusion. Respondents were given the opportunity to identify two key barriers that made it difficult for children with special needs to be included in child care environments. All

comments were analyzed and grouped according to emerging themes. Originally, each comment was classified as related to either a systemic issue (such as funding or time), or a human issue (related to parents, children, occupational therapists or child care providers). These two broad themes were then further analyzed to identify specific barriers.

The most common theme to emerge was factors relating to the child care staff. Many respondents felt that child care providers lacked the knowledge and skills needed for successful inclusion. This was echoed in the comments of a respondent who suggested that "child care providers have limited education/understanding of student and thus [are] less open to trying various strategies (such as sensory over just behavioral approach)". Others felt that child care providers may have negative attitudes and/or beliefs about inclusion. These sentiments were summarized by one respondent who stated that "care provider's attitude and lack of willingness to embrace differences and believe in the difference that intervention and inclusion can make to a child" was a barrier to inclusive child care. Closely related to this were issues related to perceived fears of child care providers. Fear was linked with both fear of not knowing what to do to integrate a child with special needs as well as the fear that the cost of accepting these children (extra help being trained, buying special equipment etc.) would negatively impact the overall program. Some comments suggested that the overall approach to care was too inflexible or rigid to support the level of adaptations/accommodations required. For example, one respondent suggested that there are "un-accepting centers that do not allow for change/adaptations". Overall there seemed to be doubts expressed about the abilities of child care providers to work effectively with children with special needs.

The second theme that emerged was related to environmental factors. Over fifty of the comments reviewed related to the lack of appropriateness of either the physical or sensory environment within child care centers. In particular, respondents often noted that child care environments did not have adequate physical space. It was noted that space was not accessible for children using mobility devices, and that accessibility to gymnasiums and outdoor play areas in particular were often difficult. There was also a sense that environments were often over stimulating, both due to the number of children and related noise, as well as the general design of the environment. This was echoed by a respondent who related her feelings that child care environments were often "chaotic, noisy and over-stimulating".

Closely related to this theme is the suggestion by about a quarter of respondents that the ratio of children to adults within child care settings was often not sufficient to meet the needs of children with special needs. Funding issues were also identified, both in terms of availability of funding to support child care programs (ex. increased staffing, resources and training) as well as financial barriers for parents who were unable to access child care due to costs associated with enrollment and/or transportation. Table 13 provides additional information about all themes that emerged.

Table 13

Barriers to Inclusive Child Care

Theme	Barrier
Child Care Staff	Lack of knowledge/skill; negative attitude towards inclusion; lack of flexibility; fear
Environmental Access	Physical and/or sensory environment not appropriate for children with special needs
Staff Ratios	Not enough staff to provide for specialized needs of children with special needs.
Funding	Lack of funding for extra staff, resources, equipment.
Financial Access	Cost of child care and transportation too high for parents to pay. Lack of transportation for parents.
Supports/ Resources	Inadequate access to specialists/consultants/occupational therapists as well as resources
Equipment	Lack of specialized equipment, developmentally stimulating/accessible/adapted play materials, etc.
Child Factors	Children's complex medical needs (ex. GI tube, etc), aggressive or other behaviors, sensory issues, safety for other children
Programming	Inconsistent, inflexible approach; program philosophy; policy barriers.
Availability	Child Care spaces not available; no child care program; long waiting lists for space
Parents	Parents unwilling to consent to referrals/ accept help; denial; fear; anxiety.

In addition to providing data about respondents' perceptions of the barriers to inclusive child care, the survey also provided information about what respondents identified as opportunities to promote inclusive child care. Respondents were asked to identify two key ways that occupational therapists could support child care inclusion. Qualitative responses were analyzed by the researcher and then grouped according to emerging themes. The most common theme to emerge was factors relating to providing education for child care staff. Respondents indicated that occupational therapists could help provide education for child care staff related to child care inclusion. Specific

examples of this included providing training for child care providers related to self care routines, transfers, and other child specific inclusion strategies. One respondent suggested that "providing simple, concise and concrete suggestions to implement in the classroom such as singing a specific song or use of a specific seating arrangement" were contributions that occupational therapists could support.

Respondents also suggested that occupational therapists could take on more mentoring and coaching roles for child care providers, helping them develop skills that would support a more inclusive approach, "helping them problem solve though the issues that are in the way of the child's participation in activities". A broader approach to educating child care providers such as providing general training about inclusion and disability and participation in continuing education workshops was also highlighted by several respondents. Table 14 demonstrates the emerging themes identified opportunities for occupational therapists to promote inclusion.

Table 14

Opportunities for Occupational Therapists to Promote Inclusive Child Care

Theme	Opportunities for Occupational Therapists
Education	providing education either individually or group based to child care providers, admin, support workers, etc. including coaching and mentoring of staff
Consultation	consulting with staff regarding inclusion strategies
Adaptation	providing recommendations or assisting with adaptation of physical space, materials or program
Environment	assessing, designing or adapting the physical, social or sensory environment
Collaboration	collaborating with child care providers and families
Advocacy	advocating for improvements to child care programs, systems and funding , staff supports, etc for children
Equipment/ Resources	providing and/or recommending specialized equipment such as seating or adaptive equipment or play materials
Broad Strategies	promoting strategies that target all children including designing inclusive programs and physical environments
Increased Access to Occupational Therapy	supporting more active involvement of occupational therapists in child care environments. E.g. more occupational therapists, work in child care programs, etc.
Families	working more closely with families to support inclusion

Respondents were also asked to reflect on their own individual practices to consider ways to improve their ability to support child care inclusion. Qualitative comments were analyzed to identify emerging themes. Some of the emerging themes were similar to the general opportunities to promote inclusive child care including advocacy, resources and collaboration. In addition several new themes emerged, mainly related to occupational therapists' practice. Some respondents suggested they needed smaller caseloads in order to be able to provide more treatment directly in child care environments as opposed to only being able to support "one off consultation". Similarly, others commented that occupational therapy practice could be more integrated with child

care programs by having more occupational therapists to support needs of children in child care. Respondents commented that occupational therapists had the required skills and equipment, but were not able to provide services due to the large caseload and/or long waiting list.

Another emerging theme was the need for additional knowledge by occupational therapists to support inclusive practice. Some therapists admitted that they were not familiar with the policies and needs of child care programs and facilities. There seemed to be recognition that if they had more knowledge about child care philosophies and approaches that they would be better able to support child care providers. Some specific examples of where respondents felt they needed more knowledge included current models and trends in early childhood education, child care policies and procedures, universal design for learning and local child care options.

> "One of the things that would have been helpful in occupational therapy school was to learn more about adult education/how to be an effective consultant. 85% of what I do is related to teaching others how to work with a child – therapeutic use of self, learning how to read peoples' reactions to suggestions, learning how to meet child care staff at the level that they need support, recognizing when to only give one suggestion vs. 20, learning how to evaluate your effectiveness/impact on a program – these are all critical skills in my interactions with child care staff. Some of these skills are difficult to teach but exposure through fieldwork and support though learning more about adult education in school may help new grads.

The need for occupational therapy research regarding child care inclusion was also noted.

Many respondents identified that the role of occupational therapy within child care environments was not always fully recognized or utilized. They felt that there was a lack of awareness of the expertise of occupational therapists, and an acknowledgement that if child care programs had a better understanding of how occupational therapy could support inclusion that they would ask for help more often. It was suggested that while referrals generally come from parents, it would be nice to see them coming from child care providers as well. The benefits gained by having a practice embedded within a child care program are echoed in a general comment made by one respondent:

> "It can be difficult to support clients with special needs in the daycare setting when you are not invited into the setting by the staff– but are associated with a government program. Many of us feel as though we are "stepping on toes" in that environment, and often have a sense that the daycare staff feels that we are there to tell them that they are doing things incorrectly. I want to be able to provide suggestions on how to improve a child's inclusion, but at the same time I don't want to appear judgmental and as though my ideas are better than what the staff has implemented. Child care staff is not always welcoming of outsiders, so in some cases our best intentions are met with reluctance and defensiveness."

Other themes that emerged concerning opportunities for occupational therapists to promote inclusion related more to changes necessary within child care environments or broader community. This included things such as increasing funding, changing child care environments themselves, and community advocacy. It was suggested that increased funding could support occupational therapists, by creating more positions, more education, or more resources and equipment for use in child care programs. Funding

could also support enhanced ratios or training for child care programs, or subsidies for child care spaces and transportation for parents. Changes to child care environments to support inclusion included suggestions such as improving staff:child ratios, improving the physical environment and the knowledge/skill of providers. While these changes are for the most part external to occupational therapy practice, respondents felt that these changes would improve their ability to support child care inclusion. Some respondents indicated that there may be a role for occupational therapists in supporting broader advocacy for inclusion at a program and community level. Table 15 identifies the major themes that emerged from this question.

Table 15

Opportunities to Improve Respondents' Ability

Theme	Opportunities to Improve Respondents' Inclusive Practice
Accessibility of Occupational Therapy	Improving ability of occupational therapists to spend time within child care environments including smaller caseloads, support for transportation off site and mandate to visit in child care environments.
Knowledge	Increasing occupational therapists knowledge of early learning programming, inclusive strategies, research about best practice and knowledge of local programs.
Funding	Increased funding for occupational therapy positions, child care environments to support enhanced staff ratios, equipment and funding for parents to improve accessibility of child care.
Child Care Environment	Changing child care programs to support inclusion by increased child: staff ratios, increasing education/knowledge/skill of providers, increasing resources and equipment onsite.
Collaboration	Improving collaboration between occupational therapists and child care providers and/or parents.
Occupational Therapy Role	Increasing knowledge/awareness of role of occupational therapy in child care environments, earlier and more referrals to see clients in these environments.
Equipment/ Resources	Improving access to equipment and resources to support inclusion within child care environments.
Advocacy	Advocating for improvements to inclusion at the community and government level.

Enabling Occupation

The Canadian Model of Occupational Performance and Engagement offers a framework by which to understand the essence of occupational therapy practice. The model provides a representation of human occupation, suggesting that it is the result of a "dynamic interaction of person, occupation and environment" (Townsend & Polatajko, 2007, p. 23). The final subquestion of interest sought to explore how occupational therapy practice supported enabling occupation in child care environments. In order to

fully investigate how Canadian occupational therapists are enabling occupation in child care environments it is necessary to explore how occupational therapists support the person, environment and occupation components of the CMOP-E. Respondents were asked to identify how frequently these occupational performance components, environments and types of occupation were addressed in their interventions to support child care inclusion. After eliminating respondents who indicated that their current work did not support inclusion, results indicated that all areas and environments are addressed by occupational therapists, but that some are used more frequently than others. While all occupational performance areas were generally addressed, there was some variability in the frequency that environments and performance components were addressed. Both the physical performance component and physical environment were addressed most frequently, and the institutional and cultural environment addressed least frequently.

For comparison, these overall findings were compared to the subset of respondents who indicated that they frequently or almost always practiced in child care environments. (This constitutes the groups that most consistently practiced most of the inclusion strategies, and therefore might be considered the 'most inclusive' respondents). Table 16 demonstrates that when these 'most inclusive' respondents were compared to all respondents, the same pattern emerged with respect to the areas most and least frequently addressed. As expected, the respondents within the most inclusive category addressed each area more often.

Table 16

Percentage Addressing Each Area Frequently or Almost Always

	All respondents (n=168)	Respondents who practiced in child care frequently/almost always (n=54)
	Percentage	Percentage
Performance Component		
Physical Performance	75	89
Cognitive Performance	54	61
Affective Performance	41	50
Environments		
Physical Environment	64	72
Social Environment	55	69
Institutional Environment	30	35
Cultural Environment	29	32
Occupational Performance Area		
Self Care	73	87
Productivity	71	87
Leisure	64	65

A chi square test of association was completed to identify if there was any correlation between the frequency that a performance component was addressed and the frequency that respondents practiced in a child care environment. Detailed results, which are presented in Appendix G, indicated that there was a significant correlation at $p<0.05$ for all components except the institutional environment. While institutional environments were addressed more often, the difference did not reach statistical significance, and the difference in addressing cultural environment barely reached significance at 0.049. For all other areas, the more frequently a respondent practiced in a child care environment, the more likely their practice was to frequently or almost always address occupational performance components, environments and types of occupation.

Enabling is a core competency of occupational therapy practice, describing what occupational therapists actually do (Towsend & Polatajko, 2007). As previously referenced, the Canadian Model of Client Centered Enablement identifies ten key skills which are used by occupational therapists to support enablement of occupations (Townsend & Polatajko, 2007). In order to further investigate how Canadian occupational therapists enable occupational in child care environments, respondents were asked to identify how frequently they used the specific enabling skills. As shown in figure 20, the most commonly used skills included collaborating (used frequently/almost always by 78% of respondents), followed closely by collaborating, (used frequently/ almost always by 57% of respondents). Designing/building was used much less frequently, with only 12% of respondents using the skill frequently/almost always.

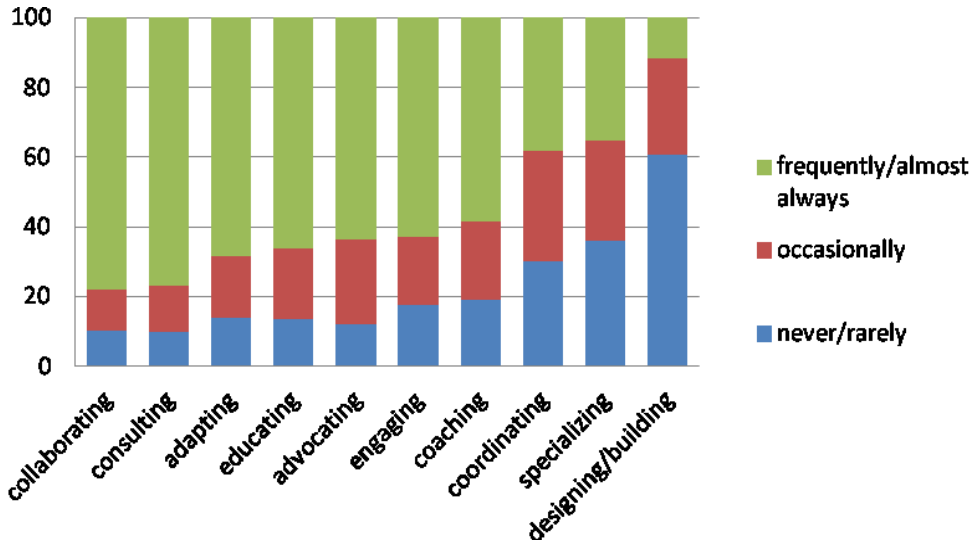

Figure 20. Use of enabling skills by respondents

This chapter has focused on presentation of the research findings, including a description of the characteristics of respondents, and their typical caseloads. It has identified which inclusive strategies are used, and presented some general patterns

concerning variables of interest that seem to be correlated with higher degrees of inclusive practice. Referral patterns by occupational therapists have been explored, and also barriers to inclusion and opportunities to promote inclusion by occupational therapists. In the next chapter, these findings will be discussed in order to fully answer the research questions. Some probable causes will be explored that may explain the general patterns noted in the findings. Findings will be compared with existing literature and the significance of findings will be explored.

CHAPTER V

Discussion

The literature provides a theoretical basis to suggest that occupational therapy practice can support the inclusion of children with special needs in child care environments (CAOT, 2004; Law et al., 2004; Restall et al., 2005; Simeonsson et al., 2001; Stadnyk et al., 2010; Townsend & Polatajko, 2007). It provides examples of occupational therapists working in the context of child care programs (Bruder & Staff, 1997; Priest, 2006; Shasby & Scnheck, 2005; Ideishi et al., 2006) and suggests that occupational therapists providing pediatric early intervention services support inclusion in natural environments such as child care settings (Childress, 2004; Hanft & Ovland-Pilkington, 2000; Jung, 2007; Ovland- Pilkington, 2006; Shelden & Rush, 2001). The current study was designed to explore whether or not Canadian occupational therapists actually contribute to child care inclusion, and if so, to describe how they do contribute.

There are myriad ways that occupational therapists can support child care inclusion, including interventions that are provided directly within the context of child care programs (e.g. assessing the child care environment, embedding goals into the program) as well as interventions that may occur outside the child care environment (e.g. referring clients to child care programs, sharing treatment goals with child care providers, and educating or consulting with child care providers). The results of the present study indicate that Canadian occupational therapists do provide services within child care

environments. While only a few respondents were actually employed by child care environments, many respondents still provided service directly in these environments. There was also evidence that respondents supported child care inclusion through interventions that were not directly based in child care environments. This chapter focuses on the actual practices of respondents related to child care inclusion. In particular, findings that may have implications for occupational therapy practice, education and research will be highlighted and discussed.

Occupational Therapy Practice Supports Child Care Inclusion

The first important finding is a confirmation that Canadian occupational therapy practice does indeed support child care inclusion. This study operationalized the concept of child care inclusion by breaking it down into 10 key domains, identified to be best practices for child care inclusion. A questionnaire was used to gather information about respondents' use of 29 specific practices which relate to these ten broad inclusion domains. Results indicate that Canadian occupational therapists used each of the identified 29 practices at least to some extent. Some of the most commonly used strategies included tasks that involved consulting with child care staff such as sharing treatment goals, providing resources, forwarding reports, and engaging in collaborative goal setting.

Some of the qualitative findings presented in chapter four suggest that respondents perceive that child care staff do not always to understand how occupational therapy practice supports child care inclusion. This study has provided empirical evidence to describe some concrete examples of interventions used by occupational therapists that contribute to the inclusion of children with special needs within child care

environments. While there is little doubt within the occupational therapy profession that occupational therapists support inclusion, this new empirical evidence can be used to educate others about occupational therapy's role in supporting child care inclusion.

Limited use of Important Strategies

Another important finding was identified by reviewing the overall frequency of use of each of the inclusion domains. Most of the domains were utilized at least occasionally by most respondents. There were two notable exceptions: (a) strategies linking to staff support and (b) those involving director/ board of directors. Despite the fact that the occupational therapy literature supports a role for occupational therapists in these broader types of interventions (Restall et al., 2005; Priest, 2006) these domains were used very infrequently by respondents. In fact, even the 'most inclusive' respondents used these strategies very little. Strategies included in these domains were: providing input into allocation of staffing resources, providing input into the overall child care program/curriculum, developing inclusive policy for child care environments, as well as providing expertise to the director/manager or board of directors. The limited use of these strategies by Canadian occupational therapists is concerning, particularly since the literature specifically identifies that the director has a significant influence on the inclusiveness of a child care program (Irwin et al., 2004; Mulvihill et al., 2004). It is likely that if occupational therapists wish to improve child care inclusion, strategies that support the director potentially have the most significant impact. Despite this, the study evidence suggests they currently appear to be used infrequently by Canadian occupational therapists.

There are a number of possible reasons why occupational therapists may use these strategies/domains less frequently than others. It may be that occupational therapists and/or child care providers do not think it is an appropriate role and hence occupational therapists are not requested to, or seek opportunities to be involved in these types of roles. Alternatively, it is also possible that occupational therapists/child care providers do see these types of interventions as important, but that occupational therapists employers do not support using these types of inclusion strategies with their work mandate. Three of the four strategies surveyed within this domain are broad in nature, and would not typically be linked with an individual child on an occupational therapists' caseload. Since these interventions are not typically direct care they may also not be billable services for occupational therapists who are in private practice models.

Occupational therapists that are not employed directly by child care programs, may not be supported by their employers, (or invited by child care programs) to be involved with these broader program activities. Since only two respondents were employed by child care environments, it was not possible to fully explore this possible correlation. This hypothesis is however, supported by the analysis of main responsibilities in that occupational therapists with non-clinical duties (which included consulting, admin/management, teaching/education, research) were found to be more frequently involved in these broader, non-child specific strategies. It is also plausible that if, as many respondents suggested, there is a general lack of understanding of the abilities and skills of occupational therapists related to child care inclusion, referral sources would not directly request these types of support/intervention. Regardless of the reason why, it is clear that Canadian occupational therapy practice does not focus on these types

of inclusion strategies. Since the literature indicates that they may be major predictors of successful inclusion, an increased focus on these areas by occupational therapists should be considered.

Most Inclusive Respondents

When findings from the present study were carefully reviewed, it was evident that some specific characteristics of respondents, their employment context/situation and their caseload appeared to influence the degree to which inclusive strategies were utilized. Client characteristics such as age and diagnosis, as well as the treatment environment used most frequently by respondents were most significantly correlated with use of inclusive strategies. In general there was increased use of inclusion strategies by respondents who had more toddlers and preschoolers on their caseloads, and a decreased use of inclusion strategies among respondents with an increased number of older clients on their caseloads. This is logical, as many of the specific strategies are geared towards younger children (toddlers/preschoolers) who are most likely to be involved with child care programs. Therefore, respondents who work with more of these children would have more opportunity to use the strategies.

Four of seven identified diagnostic categories also had significant correlations with use of inclusive practices. Notably, there was increased use of inclusion strategies by respondents who worked with more clients with development delays or neurological problems. The chronic nature of disabilities experienced by clients with developmental delays and neurological problems are such that they are generally followed by clinicians for extended periods of time. Since intervention may span a longer timeframe occupational therapists may develop stronger relationships with family and caregivers.

This might provide increased opportunities for practice within natural settings, and therefore increased use of inclusive practices. Alternately, respondents with high numbers of acute medical surgical and neonatology clients on their caseload tended to use inclusive strategies less frequently. Children on acute medical surgical or neonatology caseloads are more likely to be very ill and treated in inpatient settings. Respondents may not be following these types of clients for extended periods of time, and not likely to have opportunity, or funding support to be involved in any natural environments, including child care environments. Therefore it is logical that they would be less likely to utilize many of the inclusive strategies identified in the survey.

All eight of the identified treatment environments demonstrated significant correlations with the use of inclusive strategies. Therapists who worked more in natural environments such as child care programs, family child care homes, child's own home and other family homes demonstrated the most consistent use of almost two thirds of all inclusive strategies. It is not surprising that occupational therapists who practice more frequently in child care programs were found to be more likely to use most of the identified inclusion practices. As previously noted, occupational therapists that practice most often in inpatient settings would have fewer opportunities to develop skills in inclusion, relationships with child care programs/providers, and have less organizational support for practice in child care or other natural environment, thus using inclusive practices less often. What was surprising however were findings related to school based therapists. Since school based practice shared an educational context and was a natural environment, it was expected that occupational therapists who practiced in school environments would be skilled in the use of inclusion strategies and practice them

frequently. The survey results, however demonstrated that school based occupational therapists were actually less likely to practice the identified inclusion strategies. This is likely due to the fact that school based occupational therapists work with primarily older children who may not attend a child care environment, and many of the inclusion practices surveyed related to practice in a child care environment.

While treatment setting and features related to caseload seemed to have a significant influence on the overall practice of inclusive strategies, other factors also influenced the use of some inclusive practices in particular. For example, while the education and experience level of respondents did not seem to have a major impact on the overall usage of inclusive strategies, there were still a few practices where systematic differences were observed. Occupational therapists with graduate level education were more likely to practice one inclusive strategy (consulting with parents regarding child care), and occupational therapists with additional non-occupational therapy qualifications were more likely to use several of the inclusion strategies. Also with respect to education, it was surprising that having additional continuing education *was not* correlated with increased inclusiveness. This was despite the fact that almost all of respondents with additional continuing education felt that this education prepared them well or exceptionally well for practice in child care environments. The nature and degree of continued education reported by respondents was quite varied, and analysis by type or duration of continuing education was not possible. While it is probable that some specific workshops may have had an influence on inclusiveness of practice; the data did not allow analysis at this level. While many respondents indicated that they felt further

knowledge and education about child care inclusion would promote better inclusive practice, this was not demonstrated in survey results.

Also surprising was the fact that more experienced occupational therapists were not notably different in their practice of inclusive strategies than less experienced therapists. Occupational therapists with 10 years or more of experience were only statistically different from those with less experience in one inclusive strategy. More experienced occupational therapists asked if children were attending child care as a part of their assessments more often than therapists with less experience. It should be considered however, that the majority of respondents were very experienced, with almost half of occupational therapists who responded having greater than 15 years of experience. Since only a few of the respondents had less than five years experience it was not possible to examine whether or not new graduates practiced differently than more experienced therapists with respect to use of inclusive strategies.

As with educational characteristics, employment characteristics including region of practice were also not found to have a major impact on the respondents' use of inclusive strategies. Child care environments are regulated at the provincial level and likewise most occupational therapy services are delivered within the context of provincial health services. Since there are likely trends on a provincial basis regarding provision of pediatric occupational therapy services (e.g. accessibility of occupational therapists, design of early intervention services, etc.) as well as child care services (degree of non-profit vs. for profit providers, age of school initiation, accessibility of child care spaces, etc.), it had been anticipated that there would also be regional trends related to the use of inclusive practices by occupational therapists. However, this was not apparent in the

data; in fact quite the opposite was true. It appears that occupational therapy practice related to inclusion is quite consistent throughout Canada.

Primary employer and employment status were also generally found to be insignificant as predictors of inclusivity. The main responsibilities of occupational therapists did predict use of three of the identified inclusion strategies. Respondents whose main responsibilities were clinical were found to be more likely to ask if children were attending child care and also to recommend that children attend child care programs than occupational therapists with other non-clinical main responsibilities. In addition, respondents whose main duties were non-clinical were more likely to be involved with curriculum development than those involved with direct clinical care. This is not a surprising result since occupational therapists practicing in these areas would be less likely to be focusing on direct one-on-one therapy with individual children, and therefore it would not be logical for them to be inquiring about referral patterns or making referrals. They would however, be better positioned to be involved with broader consultation strategies such as curriculum development.

Referrals to Child Care Environments

The data presented has established that Canadian occupational therapists do support child care inclusion, and that the degree to which they use specific inclusive strategies is related to the age and diagnosis of their clients, as well as the environment within which they provide services. The literature suggests that the inclusion of children with special needs in child care benefits not only children with special needs, but also typically developing children, and society as a whole (Odom, 2000; Child Care Advocacy Association of Canada (CAAC), 2004; Mulvihill et al., 2004). It was expected that

occupational therapists would recognize these benefits and that this would be demonstrated by frequent referrals to child care programs by respondents. Almost 80% of respondents indicated that there were at least some clients on their caseload who did not currently attend child care programs, but who would benefit from attending. However, when respondents were asked to indicate how often they recommend that a child on their caseload attend a child care program over 40% never or rarely made referrals. This demonstrates that while Canadian occupational therapists do recognize the general benefits of participation in child care environment, they do not routinely refer them.

In reviewing respondents' reasons for not referring when a referral might be appropriate, the most common deterring factors were related to the child care programs' inability to meet families' needs (i.e. location, cost, hours of availability, transportation, etc.). The literature confirms that inadequate access to child care is an issue of national proportion and that the vast majority of families in Canada find child care expensive and difficult to access (Canadian Paediatric Society, 2012). For families with children who have special needs these issues are even more prevalent. Markos-Capps and Godfrey (1999) suggest that children with special needs are "frequently denied access to mainstream day care centers because of inadequately trained staff, costs constraints, and inadequate facilities" (p.62). While it appears that respondents' beliefs about the accessibility of child care are valid, this also raises questions about the role of occupational therapists in advocating for improvements to child care to support children with special needs on both an individual and collective nature. CAOT, in their position statement on healthy occupations for children and youth (2009) suggests that

occupational therapists should collaborate with stakeholder groups to develop and promote social policies that support children and youth's engagement in active and healthy occupations," and "address barriers to participation in active and healthy occupations by advocating for safe and accessible environments that support the occupations for Canadian children and youth." (p. 1) This statement calls on occupational therapists to work more closely with child care staff, directors, programs, and other advocates to address some of the barriers that have been identified. Findings from this present study suggest that these types of interventions are used very infrequently.

In addition to concerns regarding accessibility of appropriate child care, about a quarter of the respondents indicated that they did not refer because the child's family had either not requested or consented to a referral. Client-centered practice is a longstanding tenet in occupational therapy practice, suggesting that occupational therapists "demonstrate respect for clients, involve clients in decision making, advocate with and for clients in meeting clients' needs, and otherwise recognize clients' experience and knowledge" (CAOT,1999, pg. 49). Many comments made by respondents echoed this statement suggesting that attending child care is a family decision and a parent's choice, rather than a therapist's responsibility. In the context of occupational therapy client-centered practice, the ultimate goal is the development of a partnership which enables solutions to occupational problems and the achievement of occupational goals. Study results suggested that over half of respondents felt that attendance at child care environments supported attainment of occupational therapy goals, however despite this many still waited for families to request child care before advocating that it may help them or their child overcome some occupational performance difficulties. While there

are many reasons why referral to a child care program may not be appropriate, or feasible, occupational therapists should still consider the appropriateness of making a referral and discuss the pros and cons carefully with parents. Findings in this study suggest that this may not be occurring on a consistent basis.

Overall, it is apparent that the vast majority of respondents identified children on their caseload who could benefit from participation in child care environment, but many did not refer. Many clear reasons for not referring have been identified, some of which are supported as barriers in the early childhood literature. Some factors however, are related to occupational therapy practice. This suggests that changes to current occupational therapy practice may be possible to further support child care inclusion.

Barriers to Inclusion

The third research subquestion focused on the identification of barriers to inclusive child care as well as opportunities to promote inclusion in child care environments. The literature provides some context to identify barriers, and many of these barriers were also identified by occupational therapists who responded to this survey. For example, inadequate preparation of child care providers and poor attitudes towards inclusion by child care staff have been reported as barriers to successful inclusion by many sources (Brotherson, Sheriff, Milburn & Schertz, 2001; Fewell, 1993; Frankel, 1994; Kelly & Booth, 1999; Markos-Capps & Godfrew, 1999). In the present study, 55% of respondents indicated that the (perceived) education, abilities and attitudes of child care providers were barriers to inclusive child care, making these factors the most commonly reported by respondents. Similarly, Fewell (1993) and Markos-Capps and Godfrey (1999) suggest that inadequate physical environments impede accessibility

for children with special needs, and almost 30% of respondents also indicated that environmental issues were significant barriers to inclusion. As previously noted, increased staff to child ratios are often required to successfully include children with special needs. The policy, funding and other resources necessary to implement these enhanced ratios have been cited by several authors as barriers (Fewell, 1993; Frankel, 2004; Odom, 2000). Similarly, over 40% of respondents suggested that insufficient child to adult ratio was a barrier to successful inclusion. Some other factors that have previously been found to influence inclusion include government funding (Frankel, 2004); resource supports and consultative services (Fewell, 1993: Frankel, 2004) increasing numbers of challenging children (Brotherson, Sheriff, Milburn & Schertz, 2001); incompatible regulations across programs (Brotherson et al., 2001); and factors relating to parents' ability to find and access appropriate child care (Kelly & Booth, 1999; Markos-Capps & Godfrey, 1999). Many of these additional factors were also reflected in the themes identified through analysis of qualitative data presented in chapter four. One of the main reasons respondents did not refer was because they felt that the child care programs would not meet the needs of their client. Many of the factors presented by respondents as reasons why programs did not meet the needs of their clients were also identified here as barriers to inclusion. Respondents identified many barriers to inclusion consistent with those presented in other literature. This suggests that many occupational therapists have a valid understanding of the barriers that prevent children with special needs from being included in child care environments. These barriers explain, at least in part, why respondents do not always refer clients to child care programs.

The second part of this research subquestion sought to identify opportunities to promote child care inclusion. Respondents were asked two questions that helped to gain perspective on this. First, they were asked to identify two key ways that the profession could support child care inclusion, and secondly, they were asked to identify what, if anything could improve their own ability to support child care inclusion.

Ways for Occupational Therapists to Support Inclusion

When asked about ways that occupational therapists could promote inclusion the top three themes that emerged were providing education, consulting with child care staff and making adaptations. Examples included individual interventions that occupational therapists could use within child care programs such as educating child care staff, providing advice through consultation, adapting the environment and providing resources. Many of the specific strategies that respondents identified in their qualitative comments were consistent with those identified by the author, and included within the questionnaire.

Since the questionnaire collected data about use of these strategies it was possible to identify whether or not Canadian occupational therapists were actively involved in the very strategies that they proposed as key strategies to promote inclusion. For example, the theme most commonly identified was providing education to child care providers. When respondents were asked how frequently they did this, for groups or individuals, about half said never or rarely. This suggests that despite noting that providing education was an important role for occupational therapists, respondents did not actually do it very often.

Themes of consultation, adaptation and environment were similar. With regard to consultation, the findings were more positive, in that about two thirds of respondents consulted with parents and child care providers about inclusion at least occasionally, and about half consulted frequently or almost always. Relatively speaking, consultation was one of the most frequently used strategies. This is likely due to the fact that consultation can occur outside of the physical environment of a child care setting, and thus may used by respondents who practice in different treatment settings. The frequent use of consultation may also reflect that occupational therapists see this as an effective treatment strategy.

The actual practices of respondents related to adaptation varied considerably depending on the specific strategy. While almost 80% of therapists recommended new or adapted routines/activities, about 50% never or rarely adapted materials/equipment or outdoor play spaces. Strategies related to the environment were similar, with most strategies never or rarely being used by about one third to one half of participants. Table 17 summarizes the relationships between opportunities identified by respondents, and the actual practice of respondents for each of the related strategies.

Table 17

Frequency of Participation in Strategies Suggested as Opportunities to Promote Child Care Inclusion

Opportunity to Promote Inclusion	Corresponding Inclusive Strategy	% Who Never/ Rarely Use Strategy
Education	Provide individual instruction to child care providers	45%
	Provide group instruction to child care providers	53%
Consultation	Consult with child care providers	27%
	Consult with parents re: child care inclusion	29%
Adaptation	Adapt/modify equipment/play materials	47%
	Recommend adaption to physical environment	34%
	Recommend adaptation to outdoor play spaces	54%
	Recommend new/adapted routines/activities	23%
Environment	Assess physical environment	37%
	Recommend adaption to physical environment	34%
	Recommend adaptations to outdoor play environment	54%

One might expect that if respondents identified opportunities for occupational therapists to promote child care inclusion that they would frequently participate in these activities. However, as demonstrated in Table 17, this is not always the case. This table illustrates that between 23% and 54% of respondents never or rarely participated in the very strategies respondents identified as opportunities for occupational therapists to support child care inclusion.

Improving Occupational Therapy Practice

When respondents were asked to reflect on their own practice and identify things that could improve their own ability to support inclusion the themes that emerged were generally more broadly related to the way services were delivered, as opposed to individual practices of therapists. Several of the themes were specific to occupational

therapy practice and others were related to changes required within child care environments or society at large. Specific to occupational therapy practice, the two most common themes to emerge were improving access to occupational therapy services in child care environments and increasing knowledge/skills of occupational therapists.

Many occupational therapists felt they could better support inclusion if they were able to spend more time within child care environments and work more directly with child care staff. Several respondents indicated they were currently prevented from doing so because of long waiting lists, or because of the time/cost of travel offsite to provide services outside their normal locations. Others indicated that they simply were not supported to provide services in these locations due to the mandate of their position or their employer. Some respondents suggested that they would like services to be designed to support a more direct role within child care environments, including the ability to support general interventions that would enable all children, as opposed to only children with identified special needs. Earlier in the discussion, respondents who practiced frequently in child care environments were identified as among the 'most inclusive' respondents. This seems to support the argument proposed by respondents who suggested that spending more time within child care environments would better promote inclusion.

There was also recognition that occupational therapists did not always feel they truly understood best practices for child care inclusion, nor did they always have an understanding of the child care environments' general policy and philosophy. This is not surprising, considering that almost half of respondents indicated that their occupational therapy education did not prepare them very well or at all for working in child care

environments. In contrast, most respondents *thought* they had been well-prepared to work in child care environment through continuing education, but these continuing education experiences were so varied that it is impossible to know whether there are specific workshops/courses that helped promote more inclusive practice. The concept of universal design for learning is emerging as best practice within early childhood settings. Yet, while the general concept of universal design is familiar to most occupational therapists, only about 20% of respondents indicated that they were familiar with the concept of universal design for learning, which specifically links universal design to child care programming. Given these findings it is likely that further education for occupational therapists regarding child care inclusion would be beneficial.

Other themes that emerged concerning opportunities for occupational therapists to promote inclusion related more to changes necessary within the child care environments or broader community. This included things such as increasing funding, changing child care environments themselves, and community advocacy. It was suggested that increased funding could support occupational therapists, by creating more positions, more education, or more resources and equipment for use in child care programs. Funding could also support enhanced ratios or training for child care programs, or subsidies for child care spaces and transportation for parents. Changes to child care environments to support inclusion included improving staff:child ratios, creating a more accessible environment, and strengthening the knowledge/skill of providers. While these changes are for the most part external to occupational therapy practice, respondents felt such changes would improve their ability to support child care inclusion. Some respondents

indicated that there may be a role for occupational therapists in supporting broader advocacy for inclusion at a program and community level.

Overall, the themes that emerged for opportunities to promote inclusion seem to be closely linked to the themes identified as barriers to inclusive child care. For example, the most common barrier was related to the perceived knowledge, ability and attitude of child care providers and the two most common themes for promoting inclusive child care were education and consultation with child care providers. Similarly, the second most common barrier was environmental issues, and the next most common opportunities were providing recommendations for /assistance with adaptation of environment, materials or program and environment (assessing, designing or adapting the physical, social or sensory environment). This suggests that respondents have identified potential ways for occupational therapists to help overcome the barriers to inclusion. However, as previously stated, they do not consistently practice these strategies. Data from this survey has suggested that occupational therapists may need to not only change individual practice to promote inclusion, but also need to look at systems level change to design services such that broader barriers can be taken into consideration. This may include redesign of practice settings, referral patterns, etc., as well as supporting advocacy by parents, child care providers and other early learning stakeholders for broader supports for inclusive child care.

Enabling Occupation

In order to establish the contributions of occupational therapy to child care inclusion, it is important to consider how they support enabling occupation in these settings. To do this respondents were questioned about their focus on the components of

occupational performance as identified in the CMOP-E. Findings indicated that while respondents generally considered all performance components and environments to some degree, they tended to focus interventions on physical performance and physical environment more frequently than others. All three occupational performance areas (self care, productivity and leisure) were fairly consistently addressed by most respondents. This indicates that while therapists are considering all areas of occupational performance, they do not consistently address all performance components and environments. Specifically cognitive and affective performance and social, institutional and cultural environments are considered less frequently.

The child care literature clearly indicates that child care policies and leadership as well as funding and program supports have an impact on the inclusiveness of a child care program, each of which would be considered part of the institutional environment. Furthermore, many respondents identified these elements as barriers to inclusion. The fact that respondents did not consistently address the institutional environment further suggests that occupational therapists may be missing an opportunity to maximize inclusion for their clients by not considering the institutional environment in their interventions. Townsend and Polatajko (2007) suggest that

> Recently, interest has grown to understand how institutions enable or limit the occupations of people with disabilities and, ultimately, their experience of citizenship and community inclusion. The development of ideas related to occupational justice illustrate how to link occupation to individual and population health, and to the values and power relations of society. (p. 53)

This reinforces the importance of understanding both the early childhood system of care as well as policies and influences within individual child care programs and suggests that occupational therapists should consider the institutional environment as an important focus for therapeutic interventions.

Another feature of enablement that can help to explain how occupational therapists support enabling occupation in child care environments is to investigate their use of the ten enablement skills. Respondents reported using all ten key enablement skills to support child care inclusion, with each skill being used to a different degree. The four most frequently used skills were collaborating, consulting, adapting and educating. Each of these skills could be used to support the key inclusion strategies identified in this survey. In fact, several of these skills were specifically identified within the identified strategies. Interestingly, the reported rates of skill use were significantly higher than the rates of usage of related inclusion strategies. For example, respondents rated collaborating as their most frequently used enablement skill, with 78% of respondents suggesting that they used the skill, whereas only 46% said they frequently worked collaboratively with child care providers. In summarizing the data presented earlier on use of enablement skills alongside self-reported use of related inclusion strategies, Table 18 shows that similar trends exist for other enabling skills.

Table 18
Percentage of Respondents Who Used Enablement Skills and Related Inclusion Strategies Frequently or Almost Always

Enablement Skill	% used	Related Inclusion Strategy	% used
Collaborating	78	work collaboratively with child care providers to set client goals	46
Consulting	77	consult with staff working at child care environment	51
		consult with parents regarding their child's inclusion in child care	45
Adapting	68	recommend adaptations to physical environment	33
		adapt or modify equipment or play materials in a child care environment	25
		recommend new activities or routines, or adaptations to current activities/routines in a child care environment	25
		recommend adaptations to outdoor play area of a child care environment	15
Educating	66	provide resource materials to child care providers	45
		provide individual training for child care providers	25
		Provide group training/education for child care providers	17

There are several possible reasons to explain these inconsistent results. There are many ways that the enablement skills may be utilized outside the specifically identified strategies. For example, while less than 50% worked collaboratively with child care providers to set client goals, perhaps they collaborated with child care providers in other ways, such as developing or implementing treatment activities (which were not specifically asked about in the survey). Perhaps they collaborated with other health care providers, or collaborated with parents but not about child care inclusion. Alternately, it may also suggest that respondents either underestimated their use of specific strategies, or overestimated their use of enablement skills. Also, it should be noted that the sample of respondents for the enablement skills questions only included respondents that identified

that their current practice was supportive of inclusion, where as the inclusion strategies questions included the entire sample pool. Therefore it is possible that the occupational therapists who were eliminated from enablement skills questions were among those who used the strategies less, and therefore decreased the overall frequency of use. Townsend and Polatajko (2007) suggest that enablement skills are used differently by different therapists' depending on personal interests, talents and experiences; that professionals will develop enablement skills differently in different professional contexts; and that skills may be used more or less depending on work setting.

This research suggests that the skills of collaborating and consulting are the most frequently used by Canadian occupational therapists in enabling occupation in child care environments. This is consistent with previously identified findings that many of the most commonly used individual inclusion strategies were connected to consulting or collaborating with child care staff.

Overall, findings have demonstrated that Canadian occupational therapists enable occupation in child care environments. However, evidence also suggests that therapists may be missing some opportunities to maximize their impact on child care inclusion. Occupational theory demonstrates that it is within the scope of occupational therapists to work at broad levels focusing on elements within the institutional environment such as child care policies, curriculum and leadership. Occupational therapy enablement skills provide the skills and abilities to support this work. Yet, despite this, evidence suggests that most Canadian occupational therapists continue to focus on inclusion for individual children, potentially missing opportunities to impact inclusion on a more universal level. Many respondents suggested that their practice was influenced significantly by their

employers restrictions on their treatment settings and activities. This calls on occupational therapists to educate employers and policy makers regarding the potential impact of their skills on child care inclusion, and to advocate for service models that maximize their potential contribution to child care inclusion for all children.

The research findings presented in this study have provided evidence to answer the research questions posed. It has established that Canadian occupational therapy practice does support child care inclusion, and provided descriptive data concerning the nature of strategies used as well as referral patterns. It has also provided some insight into what Canadian occupational therapists view as barriers to inclusive child care and identified roles for occupational therapists to promote child care inclusion. This chapter discussed these results to help identify the key findings for occupational therapy, things that should be considered by occupational therapy practitioners, managers, educators and researchers. While it has established that Canadian occupational therapy practice does indeed support child care inclusion, it has also raised important questions about things that could be improved to further support child care inclusion. These include focusing more on the institutional environment, including interactions with child care directors, and more global interventions that will support optimal development of all children, such as policy and curriculum development that support universal design for learning. It also suggests that occupational therapists should carefully consider referrals to child care environments for each client as a part of client centered practice.

This research has established that the more an occupational therapist practices within a child care environment, the more inclusive they are. This has obvious implications for the design of occupational therapy positions, suggesting perhaps, that

there would be benefits from having occupational therapy positions structured within child care programs, or at least mandated to provide consistent services in these environments. This discussion has also raised questions about how occupational therapy education is designed and whether or not there is a need to review how this education supports therapeutic approaches in natural environments such as child care environments. The final chapter of this thesis will focus on the implications of these findings for occupational therapy education, practice and research.

CHAPTER VI

Conclusion

Study Summary

This research has established that Canadian occupational therapy practice supports child care inclusion. It has identified specific strategies that are used, and recognized that there are factors that influence the frequency of use of the strategies. The most influential factors were the age and diagnosis of clients and the treatment environments used by occupational therapists. It has also established that while occupational therapists generally believe child care is beneficial to children with special needs they do not always refer children on their caseloads to child care programs. The most common factors that were identified as deterring respondents from referring included the suitability, availability and resources within the child care programs, as well as the lack of request or consent for referral from families. It was also acknowledged that for many referring to child care programs was outside of the scope of their job duties. Respondents identified many barriers to inclusive child care. The most common barriers were related to child care providers (education, skill, attitude, etc.), child: staff ratios and environmental issues within child care settings. When reflecting on opportunities for occupational therapists to promote inclusive child care, providing education for child care providers, consulting with child care programs and adapting program materials and physical space were most commonly identified strategies. Interestingly, when patterns of

use for these strategies were examined, many respondents were not using these strategies on a frequent basis.

In order to plan and deliver services to families and child care providers, professionals need to be knowledgeable about the challenges faced by children with special needs and their families (Kelly & Booth, 1999). These challenges include finding appropriate child care, and overcoming barriers to inclusion (Kelly & Booth, 1999). Many of the findings of this study provide insight into what Canadian occupational therapists perceive to be barriers and strengths to inclusive child care. The fact that many of the barriers and strengths reported by respondents were confirmed by the literature supports that respondents do have a good understanding of the current issues faced by Canadian children with special needs and their families. What is surprising however, is that while respondents were able to identify ways to overcome these barriers, they did not actually report using these strategies consistently. Each of these findings has implications for occupational therapy practice, education and research, and also for child care advocates who are interested in exploring new ways to enhance child care inclusion.

Implications for Occupational Therapy Practice

Occupational therapy practice has much to offer children with special needs and their families to support child care inclusion. It can also support child care environments as they strive to improve inclusion in their programs. Occupational therapy's focus on occupational performance and consideration of the person, environment, and occupation provides a unique perspective that can support child care inclusion and complement the skills and knowledge base of other early childhood professionals.

Using Inclusive Strategies. While McWilliams (1995) suggests that individual practitioners should take responsibility for achieving their ideal model of service delivery within child care environments, his research findings indicate that therapists often admit that they are not achieving their idea model, and would like to be more integrated in their service delivery (McWilliams, 2005). This theme also emerged in the present study when respondents identified ideal ways to contribute to child care inclusion, but findings suggested that most respondents did not use the strategies. The findings of this research have suggested several strategies that occupational therapists could use to improve their level of inclusiveness. For example, while results clearly identified that Canadian occupational therapists are frequently engaging in many strategies that support inclusion of children with special needs in child care environments, several of the identified inclusive strategies were rarely used. Directors of child care programs are a major influence on inclusiveness (Irwin et al., 2004; Mulvihill et a l., 2004), however, even the most inclusive respondents (those practicing frequently in child care environments) did not tend to interact with directors. Occupational therapists might consider the potential impact that directors have on the inclusion of children with special needs when planning intervention strategies. Similarly, occupational therapists were found to focus less on institutional environments. The opportunities to have broad impact on inclusion for all children through increased attention on the institutional environment should not be underestimated.

Another specific strategy that appears to be underused is that of referring to child care programs. Findings have suggested that as a part of client centered practice, occupational therapists should consistently consider referral to child care programs to

support attainment of occupational therapy goals. In addition, educating others, including families, child care directors and providers about the nature of occupational therapy services and how it can support enabling occupation in child care environments should be encouraged.

Promoting Practice in Child Care Environments. Survey results indicated that respondents who practiced within child care environments were the 'most inclusive respondents'', similarly those who practiced in other natural environments such as family child care homes, the child's own home and other family homes – were also found to frequently use inclusive strategies. Practices which provide opportunities to have increased time within the child care environment, and other natural environments should be encouraged, to support inclusion of children with special needs in child care environments.

Promoting Referrals to Child Care Environments. Another theme that emerged was identified through analysis of the barriers to inclusion and opportunities for occupational therapists. Many respondents indicated that they did not refer, or did not use the inclusion strategies because it was not considered a part of the mandate of their position and because the child care services did not meet the needs of their clients. This makes it necessary to consider whether or not there are other interventions or activities that could be utilized to deal with these barriers, to support advocacy for improvements to child care services for example, instead of merely accepting that they are not appropriate.

Promoting Models of Service Delivery that Support Child Care Inclusion. Frequently during this study the idea that occupational therapists could do more than they are doing to support inclusion has been raised. A potential explanation for why

occupational therapists are not always maximizing their contribution is that their services have not been designed in such a way to allow it. Boshoff, Alant and May (2005) investigated occupational therapy managers' perceptions of challenges faced in early intervention service delivery in South Australia, identifying a number of challenges related to the nature of the services as well as service delivery aspects. For example, it was noted that the traditional and intensive models of direct, one-to-one intervention and group work utilized by the occupational therapists were very common, whereas as most organizations perceived themselves to be taking a broader role involving prevention, client education, health promotion and social integration into natural settings (Boshoff et al., 2005). The main issues with service delivery were identified as inadequate staffing levels, inadequate resources, long waiting lists, locating services in clinical settings and the vast geographical distances covered by services (Boshoff et al., 2005).

Many of these themes also emerged in qualitative findings from this study, and likely have influenced practice patterns for Canadian occupational therapists related to child care inclusion. From a planning perspective, it would be beneficial to examine current models of practice, and reflecting on this research, identify opportunities to design services in such a way that we are best able to enable occupation and support child care inclusion. For example, if occupational therapists are 'most inclusive' when practicing frequently in child care environments, there should be further support for exploring models of care that support occupational therapists being employed within child care environments, as opposed to as an external consultant.

The benefits of delivering occupational therapy within the school system for older children have been well documented (Swinth, Spencer & Jackson, 2007; King et al.,

1999). Similar opportunities for occupational therapists to practice as a part of child care programs would likely have similar benefits. Supporting full acceptance of the occupational therapist as a part of the child care team would also provide increased opportunities for influence at the level of the director/board of directors. Several authors have also supported a movement towards flexible and dynamic models of practice (Case-Smith & Holland, 2009; Priest, 2006) which may offer innovative ways to deal with issues related to support child care inclusion. When developing occupational therapy services to support child care inclusion, careful consideration should be taken to ensure that services are designed to maximize occupational therapy's identified strengths including education, consultation, adaptation and environment.

Implications for Occupational Therapy Education

Overall, this study has mixed messages concerning occupational therapy education and continuing education and their impact on inclusiveness. For example, respondents believed continuing education prepared them for work within child care environments far more than did their occupational therapy education, yet respondents with continuing education showed no statistically significant difference in the extent to which they used inclusive strategies. On the other hand, respondents who held additional qualifications from disciplines other than occupational therapy were more likely to practice several of the inclusive strategies.

Many respondents indicated that they would like more knowledge concerning early childhood inclusion including things such as early childhood philosophy and practice, and working effectively as a consultant. As an example, universal design for learning has been identified as an emerging concept with theoretical links to occupational

therapy practice and inclusive child care. Yet, survey results indicate that close to half of the respondents are not at all familiar with the concept. Since the majority of respondents were experienced occupational therapists, it is likely that the concept of universal design for learning was not embedded in occupational therapy curriculum during their training. Continuing education geared towards this topic may be beneficial for occupational therapists.

These findings have implications for both occupational therapy education as well as continuing education. There may be opportunities to strengthen the occupational therapy educational curriculum concerning strategies to maximize inclusion. Since some respondents with additional non-occupational therapy programs were found to be more inclusive in some strategies, it may be beneficial to look at curriculums from other disciplines to examine whether or not they may have something to offer. Integrating concepts of universal design for learning into the curriculum may also be beneficial. Research results demonstrated that occupational therapists that practice more frequently in child care settings are more inclusive, thus it may be beneficial to promote fieldwork experiences within child care or in other natural environments as a part of occupational therapy education.

Limitations

This study has some limitations that must be considered when interpreting the results. These include issues related to the research sample, respondents, survey design and data analysis. First, the study aimed to describe the patterns of Canadian occupational therapists related to inclusion in child care environments. If some regions of the country were over or underrepresented there is a possibility that results do not truly

represent a normally distributed Canadian sample. Comparing the respondent demographics with actual regional distribution of occupational therapists (Canadian Institute for Health Information, 2011), it appears the Atlantic region was overrepresented in the research sample, and the eastern and central/northern regions were underrepresented. It is likely that since this study was completed by a researcher who resided in the Atlantic Region, as a part of Master program for a university within the Atlantic region, that invitees from this region were more inclined to participate. It may also be reflective of the fact that some provinces have mandatory membership with CAOT in order to practice occupational therapy, and therefore have a higher percentage of CAOT members.

Over 700 participants were invited to participate in this research study, yet only 230 completed the questionnaire, introducing potential volunteer bias. Pilot testing identified that the length of time to complete the survey varied depending on the practices of individual practitioners related to child care inclusion. It is possible that respondent fatigue negatively impacted response rate, and also a possibility that this was disproportionately so for respondents who had more experience with child care environments, as they would have taken longer to answer the questionnaire. Also, within the survey there were many instances of missing data. This seemed to be more prevalent later in the survey, again suggesting that respondent fatigue was an issue.

Some limitations are also noted in the design of the survey tool itself. For example, in order to preserve anonymity, respondents were asked to indicate only what region they lived in, not the specific province. Given that both health care and child care are governed by provincial legislation, it is likely that if any trends existed, it would be by

province. Without having provinces identified specifically, there was no opportunity to identify trends by province. Should this study be repeated it would be recommended that survey include an ability to indicate the specific province/territory in which they practice. Should small samples be obtained, results could be presented in more aggregate form to maintain confidentiality. Similarly, another item in survey design that limited analysis was the Likert scales used for questions in which respondents were asked to indicate amount or frequency. While using Likert scales facilitated easier responses by participants, not having an interval scale limited the statistics that could be used in analysis, and therefore the conclusions that could be drawn from the data.

Since there was no established tool to measure occupational therapy practice related to child care inclusion one was created by the author. It has no established psychometrics. There is a possibility that survey respondents interpreted specific questions differently, leading to invalid responses. For example, in the question which asked respondents to identify reasons why they referred clients to child care, several respondents provided written comments explaining why they *did not* refer to child care. There is the chance that not all components of inclusive practice were included in the survey, or that some that were included were not key inclusive practices. The study design was strengthened by using existing tools to identify key components of inclusion, and through pilot testing. Due to the primarily quantitative design there were only limited opportunities for occupational therapists to provide additional information in cases where other information was needed.

Opportunities for Further Research

Since there was little published evidence available on the topic of occupational therapy and child care inclusion, this study has helped to provide some basic knowledge around what interventions occupational therapists use/ don't use, and in what settings and with what caseloads strategies are more likely to be used. Further research that builds on this knowledge to provide a more in-depth exploration of occupational therapy and child care inclusion may lead to support the development of theory to explain how and why occupational therapists support inclusion. In particular, it may be helpful to complete a more qualitative look at occupational therapists who have been identified in this study as 'most inclusive' including those that practiced frequently within child care environments and those who had increased numbers of preschoolers and developmentally delayed clients on their caseloads. Qualitative research would include fewer restrictions and assumptions, and would support gathering information regarding feelings, behaviors and attitudes of occupational therapists who contribute to child care inclusion. Throughout the study there have been many suggestions that child care providers and directors do not understand the scope of occupational therapy practice. Further research to investigate the knowledge and attitudes of child care providers/directors related to occupational therapy practice may be helpful.

The results of this study have raised several other questions which are worthy of attention from a research perspective. For example, why is it that occupational therapists do not frequently use the very strategies they identify as required to promote child care inclusion? How can universal design for learning be applied by occupational therapists within treatment environments? How can we best design occupational therapy services

to support child care inclusion? Further research concerning these questions would add to the understanding of child care inclusion from an occupational therapy perspective.

Conclusion

Hanft and Ovland-Pilkington (2000) suggest that occupational therapy, as a profession with roots in the medical model, requires a shift in practice from rehabilitation to habilitation and from a system-centered approach to family–centered practice. This study has provided a description of Canadian occupational therapy practice related to inclusion of children with special needs in child care environments that suggests that some occupational therapists have moved towards this more effective means of providing therapy in natural environments. It has established that Canadian occupational therapists are supportive of childcare inclusion, and also helped formulate an understanding of the mechanisms though which inclusion is supported.

Survey results confirmed that occupational therapists feel child care is beneficial for children with special needs. It also confirmed that occupational therapists recognize the many barriers to child care as presented in the child care literature. These include broad system/societal reasons such as lack of child care spaces and cost. In addition, there are also seems to be other cases where occupational therapists do not refer children, despite the lack of these other barriers. This raises several important questions. What can individual occupational therapists do to improve inclusion for children on their caseload and, what can the professional body contribute to general advocacy for inclusive child care? These questions should challenge both individual occupational therapists, and the profession at large to explore their own individual practices and models of

practice for occupational therapy such that occupational therapists can improve their supports for inclusion of children with special needs in child care environments.

This might involve a combination of changes at the level of individual practice, design of clinical services, as well as within occupational therapy curriculum. In addition, an increased awareness of the contributions of the profession to child care inclusion by decision makers who influence practice through funding and policy development would support improved models of practice and opportunities to support child care inclusion. This might include a review of how pediatric occupational therapy jobs are structured, caseloads, etc. for the populations that child care can benefit. It is hoped that the findings of this study will help readers to understand the factors necessary for successful inclusion of children with special needs in child care environments, the current role occupational therapy plays in supporting child care inclusion, as well as ways to improve occupational therapy support for child care inclusion. It may educate families, child care providers, occupational therapists and other health care providers, educators, and policy makers on the role of occupational therapy in early learning settings. It may also support the development of models of practice that promote successful inclusion.

REFERENCES

Allen, K., Paasche, C., Cornell, A., & Engel, M. (1994). *Exceptional children: Inclusion in early childhood programs.* Ontario: Nelson Canada.

Beach, J., Friendly, M., Ferns, C., Prabhu, N.,& Forer , B.(2008). Early childhood education and care in Canada 2008. Retrieved from the Child Care Resources and Research Unit website http://www.childcarecanada.org/ECEC2008/index.html#toc on Feb 19, 2010.

Boshoff, K., Alant, E., & May, E. (2005). Occupational therapy managers' perceptions of challenges faced in early intervention service delivery in South Australia. *Australian Occupational Therapy Journal, 52,*232-242.

Brotherson, M., Sherrif, G.,Milburn, P., & Schertz, M.(2001). Elementary school principals and their needs and issues for inclusive early childhood programs. *Topics in Early Childhood Special Education, 21*, 31-45.

Brown, G., Rodger, S., Brown, A., & Roever, C. (2007). A profile of Canadian pediatric occupational therapy practice. *Occupational Therapy in Health Care, 21*(4), 39-69.

Bruder, M.B., & Staff, I. (1997). Toddlers receiving early intervention in childcare centers: A description of a service delivery system. *Topics in early Childhood Special Education, 17*(2), 185-203.

Bruns, D. A., & Mogharreban, C. C. (2007). The gap between beliefs and practices: early childhood practitioners 'perceptions about inclusion. *Journal of Research in Childhood education; 21*(30) 229 – 241.

Canadian Association of Occupational Therapists (1999). *Enabling occupation: An occupational therapy perspective.* Ottawa ON: CAOT Publications ACE.

Canadian Association of Occupational Therapists. (2009). *CAOT Position statement healthy occupations for children and youth.* Retrieved on October 15, 2008 from http://www.caot.ca/default.asp?pageid=1138

Canadian Association of Occupational Therapists (2008). *2007-2008 CAOT membership statistics.* Retrieved on November 27, 2008 from http://www.caot.ca/pdfs/Stats2007-08.pdf.

Canadian Association of Occupational Therapists. (2009). *CAOT position statement universal design and occupational therapy*. Retrieved on July 25, 2012 from http://www.caot.ca/default.asp?pageid=622

Canadian Association of Occupational Therapists (2010). *2009-2010 CAOT membership statistics.* Retrieved on May 24, 2012 from http://www.caot.ca/default.asp?pageid=3935

Canadian Coalition for the Rights of Children. (1999). *The UN convention on the rights of the child how does Canada measure up?* Ottawa: Canadian Coalition for the Rights of Children.

Canadian Coalition for the Rights of Children (2002). *Child care and the united nations convention on the rights of the child.* Ottawa: Canadian Coalition for the Rights of Children.

Canadian Council on Social Development (2006). *The progress of Canada's children and youth.* Retrieved September 5, 2012 from www.ccsd.ca/pccy/2006/tools.htm

Canadian Institute for Health Information (2011). Occupational therapists in Canada, 2010 National and Jurisdictional Highlights and Profiles Retrieved May 24, 2012 from http://www.cihi.ca/CIHI-ext-portal/pdf/internet/OT2010_HIGHLIGHTS_PROFILES_EN

Canadian Paediatric Society (2012). Are we doing enough? A status report on Canadian public policy and child and youth health. Retrieved August 3, 2012 from http://childcarecanada.org/documents/research-policy-practice/12/01/are-we-doing-enough-status-report-canadian-public-policy-an

Case-Smith, J. & Cable J. (1996). Perceptions of occupational therapist regarding service delivery models in school-based practice. *The Occupational Therapy Journal of Research, 16,* (1), 23-44.

Case-Smith, J. & Holland, T. (2009). Making decisions about service delivery in early childhood programs. *Language, Speech, and Hearing Services in Schools, 40,* 416-423.

Center for Applied Special Technology Website. Retrieved Feb 20, 2008 from http://www.cast.org/publications/bycast/index.html.

Center for universal design website. (2008). Retrieved Feb 17. 2008 http://www.design.ncsu.edu/cud/index.htm.

Child Care Advocacy Association of Canada. (2004). What do we mean by inclusion fact sheet. Retrieved from http//www.childcareadvocacy.ca on Feb 3, 2008.

Childress, D. (2004). Special instruction and natural environments best practices in early intervention. *Infants and young Children, 17*(2), 162-176.

City of Toronto. (2007). Inclusion: Policy development guidelines for early learning and care programs. Retreived from http://www.toronto.ca/children/pdf/policy_inclusion.pdf on Feb 20, 2008.

Clarke, G., Polichino, J., & Jackson, L. (2004). Occupational therapy services in early intervention and school-based programs. *American Journal of Occupational Therapy, 58*(6), 681-685.

Clough, P., & Nutbrown, C. (2004). Special education needs and inclusion multiple perspectives of preschool educators in the UK. *Journal of Early Childhood Research,* 2(2), 191-211

Conn-Powers, M., Cross, A., Traub, E., & Hutter-Pishgahi, L. (2006). The universal design of early education: Moving forward for all children. *Beyond the Journal,* September 2006. Retrieved October 12, 2006 from http://www.journal.naeyc.org/btj/200609/

Cool, J. (2007). Child care in Canada: The federal role retrieved June 22, 2012 from http://www.parl.gc.ca/content/LOP/ResearchPublications/prb0420-e.htm#themultilateral

Cramm, H., Pollock, N., Dennis, D., Subramaniam, K.. & Carkner, M. (2009). Occupational therapy with school-aged children. *OT Now,11*(6), 25-26.

Cross, A.F., Traub, E.K., Hutter-Pishgahi, L., & Shelton, G. (2004). Elements of successful inclusion for children with significant disabilities. *Topics in Early Childhood Special Education*, *24*(3), 169-183.

Darragh, J. (2007). Universal design for early childhood education: Ensuring access and equity for all. *Early Childhood Education Journal, 35*(2), 167-171.

Darragh, J. (2008). Access and inclusion: Ensuring engagement in early childhood environments. *Exchange,* July-August 2008, p. 20-22.

DEC/NAEYC. (2009).Early childhood inclusion: A joint position statement of the Division for Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC). Chapel Hill: The University of North Carolina, FPG Child Development Institute. Retrieved March 3, 2010 from http://community.fpg.unc.edu/resources/articles/Early_Childhood_Inclusion

Division of Early Childhood (2007). Promoting positive outcomes for children with disabilities: Recommendations for curriculum, assessment, and program evaluation. Missoula, MT:Author.

Dreiling, D. S. & Bundy, A.C. (2003). A comparison of consultative model and direct-indiret intervention with preschoolers. *American Journal of Occupational Therapy, 57*(5), 566-569.

Effgen, S., Teeters Myers, C., & Myers, D.(2007). National distribution of physical and occupational therapists serving children with disabilities in educational environments. *Physical Disabilities:Education and Related Services, 26*(1), p.47-61.

Fewell, R. (1993). Child care for children with special needs. *Pediatrics*, *1*(91), 193 - 198.

Frankel, E. (2004). Supporting inclusive care and education for young children with special needs and their families; an international perspective. *Childhood Education, 80* (60) 310-316.

Frankel, E., Gold, S., & Ajodhia-Andrews, A. (2007). Proceedings of Division of Early Childhood Annual Conference: International Perspectives on Inclusion: The Values That Bind. Niagra Falls, ON.

Friendly, M., Beach, J., Ferns, C., Turiano, M. (2006). Early childhood education and care in Canada 2006. Retrieved from the Child Care Resources and Research Unit website http://www.childcarecanada.org/ECEC2006/index.html#toc on Feb 7, 2009.

Golos, A., Sarid, M., Weill, M., and Weintraub, N. (2011). Efficacy of an early intervention program for at-risk preschool boys: A two-group control study. *American Journal of Occupational Therapy, 65*(4), 400-408.

Gray, K., Horowitz, B., Sullivan, A., Kharasch Behr, S., & Abreu, B. (2007). Occupational therapy's role in the occupation of caregiving. *OT Practice, 12*(15), 1-8.

Hanft, R. & Rhodes, D. (2005). Occupational therapy in community-based early intervention settings. *OT Practice, 9*(1), CE-1 – CE-8.

Hanft, B., & Ovland-Pilkington, K. (2000). Therapy in natural environments: The means or end goal for early intervention. *Infants and Young Children, 12*(4), 1-13.

Ideishi, S., Ideishi, R., Gandhi, T.. & Yuen, L (2006). Inclusive preschool outdoor play environments. *Special Interest Section Quarterly School System, 12*(2), 1 – 4.

Irwin, S. H. (2005). The specialink childcare inclusion scale (revised). Available by request from http://www.specialinkcanada.org.

Irwin,S.H., Lero, D. S. & Brophy, K. (2004). Highlights from inclusion: The next generation in child care in Canada. Retrieved June 22, 2012 from http://childcarecanada.org/documents/research-policy-practice/04/09/inclusion-next-generation-child-care-canada

Jirikowic, T., Stika-Monson, R, Knight, A., Hutchinson, S., Washington, K. & Kartin, D. (2001). Contemporary trends and practice strategies in pediatric occupational and physical therapy. *Physical & Occupational Therapy in Pediatrics, 20*(4), 45 – 61.

Jung, L.A. (2007). Occupational therapy in early intervention: Providing services within natural learning opportunities. *OT Practice, 12*(6), 23-31.

Kelly, F. & Booth, C. (1999). Child care for infants with special needs: Issues and applications. *Infants Young Children, 12*(1), 26-33.

Killoran, I., Tymon, D. & Frempong, G. (2007). Disabilities and inclusive practices within Toronto preschools. *International Journal of Inclusive Education,* 11(1), 81-95.

King, G., Kertoy, M., King, S., Law, M., Rosenbaum, P. & Hurley, P. (2003). A measure of parents' and service providers beliefs about participation in family-centered services. *Children's Health care, 32*(3), 191-214.

Klinger, L., Campbell, W., & Knight, J. (2009). Universal design for learning: A novel perspective on school-based services. *OT Now,* 11(6), 9 -13.

King, G., McDougall, J., Tucker, M.A., Gritzan, J., Malloy-Miller, T., Alambets, P., Cunning, D., Thomas, K., and Gregory, K. (1999). An evaluation of functional, school-based therapy services for children with special needs. *Physical & Occupational Therapy in Pediatrics*, 19(2), 5-29.

Lane, S., & Mistrett, S.(2002). Lets play!:Assistive technology interventions for play. *Young Exceptional Children*. 5(2), 19-27.

Law, M., & Dunn, W. (1993). Perspectives on understanding and changing the environments of children with disabilities. *Physical and Occupational Therapy in Pediatrucs, 13*(3), p. 1 – 17.

Law, M., Finkelman, S., Hurley, P., Rosenbaum, P., King, S., King, G., et al. (2004). Participation of children with physical disabilities: Relationships with diagnosis, physical function, and demographic variables. *Scandinavian Journal of Occupational Therapy. 11*, 156-162.

Law, M., Haight, M., Milroy, B., Willms, D. , Steward, D.,& Rosenbaum, P. (1999). Environmental factors affecting the occupations of children with physical disabilities. *Journal of Occupational Science, 6*(3), p.102-110.

Lero, D.S. (2010). Assessing inclusion quality in early learning and child care in canada with the specialink child care inclusion practices profile and principles scale. Retrieved June 22, 2012 from http://www.ccl-cca.ca/ccl/Research/FundedResearch/201009LeroAssessingInclusionQuality.html

Markos-Capps,G., & Godfrey, A. (1999) Availability of day care services for preschool children with special health care needs.*Infant Young Children, 11*(3), 62-78.

McKinley-Vargas, J. & Thomas, K. (2008). A framework for change: Using the framework to improve continuity of services to students and to define the role of occupational therapy within a large and diverse school system. *OT Practice, 13*(11) 10 - 15.

McWilliam, R.A. (1995). Integration of therapy and consultative special education: A continuum in early intervention. *Infant Young Children*, 7(4), 29-38.

Meece Scott, S., McWilliam R.A., &Mayhew, L. (1999). Integrating therapies into the classroom. *Young Exceptional Children* 2(3), 15-24.

Missiuna, C. & Pollock, N. (1991). Play deprivation in children with physical disabilities: The role of the occupational therapist in preventing secondary disability. *American Journal of Occupational Therapy*. 45,882-888.

Mulvihill, B., Cotton, J., and Gyaben, S. (2004). Best practices for inclusive child and adolescent out-of- school care, a review of the literature. *Family Community Health, 27*(1), 52-64.

Myers, C.T. (2006). Exploring occupational therapy and transitions for young children with special needs. *Physical & Occupational Therapy in Pediatrics, 26*(3), 73-88.

Myers, C.T., (2008). Descriptive study of occupational therapists' participation in early childhood transitions. *American Journal of Occupational Therapy,* 62, 212-220.

National Professional Development Center on Inclusion. (2007). *Research synthesis points on early childhood inclusion.* Chapel Hill: The University of North Carolina, FPG Child Development Institute, Author.

Niehues, A., Bundy, A., Matthingly, C., Lawlor, M. (1991). Making a difference: Occupational therapy in public schools. *The Occupational Therapy Journal of Research, 11*(4), 195 – 212.

Odom, S.L. (2000). Preschool Inclusion: What we know and where we go from here. *Topics in early Childhood Special Education, 20*(1), 20 – 27.

Orkwis, R. and McLane K. (1998). A curriculum every student can use: Design principles for student access. ERIC/OSEP Topical Brief, fall 1998.

Ovland-Pilkington, K. (2006). Side by side: Transdisciplinary early intervention in natural environments. *OT Practice, 11*(6), 12-17.

Pollock ,N., and Steward, D. (1998). Occupational performance needs of school-aged children with physical disabilities in the community. *Physical & occupational Therapy in Pediatrics, 18*(1), 55-68.

Priest, N. (2006). 'Motor magic': Evaluation of a community capacity-building approach to supporting the development of preschool children. *Australian Occupational Therapy Journal,* 53,220-232 .

Purcell M., Horn, E., & Palmer, S. (2007). A qualitative study of the initiation and continuation of preschool inclusion programs. *Exceptional Children*, *74*(1), 85-99.

Restall, G., Leclair, L, & Banks, S. (2005) Inclusiveness through community development. *OT Now,* Sept-Oct 9-11.

Sahagian-Whalen, S. (2002). How occupational therapy makes a difference in the school system: A summary of the literature.*OT Now,* May-June, 15-18.

Sandall, S., & Schwartz, I. (2006). *Building blocks for teaching preschoolers with special needs.* Baltimore, Maryland: Brookes Publishing Company.

Sandall, S. Schwartz, I, & Joseph, G.(2001). A building blocks model for effective instruction in inclusive early childhood settings. *Young Exceptional Children*, 4(3), 3-9.

Shasby, S. & Schneck, C. (2005). Use of sensorimotor theme groups to enhance developmental skills in preschool and kindergarten children. *School System Special Interest Section Quarterly,* 12(4), 1-6.

Shelden, M. & Rush, D. (2001). The ten myths about providing early intervention services in natural environments. *Infants and Young Children, 14*(1), 1 – 13.

Simeonsson, R., Carlson, D., Huntington, G., McMillen, J.S.& Brent, J. (2001). Students with disabilities: a national survey of participation in school activities. *Disability and Rehabilitation*, 23(2) 49-63.

Smith, P. (2007). Have we made any progress? Including students with intellectual disabilities in regular education classrooms. *Intellectual and Developmental Disabilities, 45*(5), 297-309.

Stadnyk, R., Townsend, E., & Wilcock, A., (2010). Occupational justice. In C.Christiansen and E. Townsend (Eds.), *Introduction to occupational: The art and science of living (2nd ed.).*New Jersey: Prentice Hall.

Swinth, Y., Spencer, K.C., Jackson,L.L. (2007). Occupational therapy: Effective school-based practices within a policy context. (COPSSE Document Number OP-3). Gainesville, FL: University of Florida, Center on Personnel Studies in Special Education

Towsend, E., & Polatajko, H.(2007). *Enabling occupation II: Advancing occupational therapy vision for health, well-being and justice through occupation.* Ottawa, ON: CATO Publications ACE.

University at Buffalo. (2005). Lets play website. Retrieved Feb 22,2008 from http://letsplay.buffalo.edu/toys/special-toys.htm.

United Nations (1989) Convention on the Rights of the Child. (1989). Retrieved October 16, 2008 from http://www2.ohchr.org/english/law/crc.htm

United Nations Convention of the Rights of Persons with Disabilities (2007). Retrieved October 16, 2008 from http://www.un.org/disabilities/convention/conventionfull.shtml

Widerstron, A.H. (2005). *Achieving learning goals through play: Teaching young children with special needs (2nd ed).* Baltimore, Maryland: Brookes Publishing Company.

Woods, J. (2008, March 25). Providing early intervention services in natural environments. The AHSA Leader. 14-23.

APPENDIX A

QUESTIONNAIRE

The purpose of this questionnaire is to find out how your practice supports inclusion of children with special needs in child care environments.

For the purpose of this questionnaire please consider child care environments to include only formalized programs such as daycare centers, family child care homes, preschool and before/ afterschool programs. These programs have services provided by non parental caregivers, typically with training in the field of early childhood education, and are usually regulated and/or licensed by a government department.

Q1. In the past 24 months, have you practiced occupational therapy with children aged 13 years or younger?

□ Yes □ No

[if no, exit survey]

Q2. In what region do you practice occupational therapy?

□ Atlantic Canada (NL,NB, NS, PEI)
□ Eastern Canada (Quebec, Ontario)
□ Central (Alberta, Saskatchewan, Manitoba)
□ Western (British Columbia)
□ Northern (Yukon, Nunavut, Northwest Territories)
□ Other

If you have chosen "other", please specify: _____
_____

Q3. What is your current employment status

□ practicing full time □ practicing part time □ non practicing

Q4. How many years have you worked as an occupational therapist?

□ Less than one
□ 1 -4 years
□ 5 -9 years
□ 10 – 14 years
□ 15 – 20 years
□ More than 20 years

Q5. Who is your primary employer? (You will have an opportunity to identify any secondary employers in the next question)

- ☐ General Hospital
- ☐ Rehabilitation Hospital/ Facility
- ☐ Mental Health Hospital/ Facility
- ☐ Children's Hospital
- ☐ Post Secondary Education Institution
- ☐ Child Care Environment
- ☐ Association/Government/Para government
- ☐ Community Health Center
- ☐ Private Practice
- ☐ Visiting Agency/Business
- ☐ Industry/Manufacturing/Commercial
- ☐ School or School Board
- ☐ Assisted living residence
- ☐ Residential Care Facility
- ☐ Other (please specify _____)

Q6. Please indicate any secondary employers (Check all that apply)

- ☐ General Hospital
- ☐ Rehabilitation Hospital/ Facility
- ☐ Mental Health Hospital/ Facility
- ☐ Children's Hospital
- ☐ Post Secondary Education Institution
- ☐ Child Care Environment
- ☐ Association/Government/Para government
- ☐ Community Health Center
- ☐ Private Practice
- ☐ Visiting Agency/Business
- ☐ Industry/Manufacturing/Commercial
- ☐ School or School Board
- ☐ Assisted living residence
- ☐ Residential Care Facility
- ☐ Other (please specify _____)

Q7. Which of the following areas of responsibility best describes the main duties of your current position? (You will have an opportunity to identify other components in the next question)

- ☐ Clinical
- ☐ Research
- ☐ Teaching/ education
- ☐ Consulting
- ☐ Administration/management
- ☐ Other (please specify_____)

Q8. Which other areas of responsibility are a regular part of your current position? (Check all that apply)

- ☐ Clinical
- ☐ Research
- ☐ Teaching/ education
- ☐ Consulting
- ☐ Administration/management
- ☐ Other (please specify_____)

The next several questions will help us understand your training and education.

Q9. What is the highest level of academic qualification you currently hold in occupational therapy?

- Diploma/certificate
- Bachelors degree
- Masters Degree – Entry to practice
- Masters Degree – Post professional degree
- Doctorate Degree
- Other (please specify_____)

Q10. Do you hold any other formal academic qualifications from another discipline/area that have assisted you with including children with special needs in child care environments? (note: There will be an opportunity to list continuing education such as NDT and SI training/workshops in a future question).

Yes No

If yes, please specify: _____
_____

Q11. As a part of your formal occupational therapy education did you: (check all that apply)

- Participate in classroom lectures related to child care environments
- Review research or other literature related to child care environments
- Participate in fieldwork experiences in child care environments
- Participate in other activities that helped prepare you for work in child care environments (please specify below)
- None of the above

Please specify other activities:_____
_____

Q12. How well has your formal occupational therapy education prepared you for working within child care environments such as daycares, preschools and/or after school child care programs?

- Exceptionally well
- Very Well
- Well
- Not very well
- Not at all

Q13. Have you received any continuing education relevant to your work with children? (E.g. sensory integration training, neurodevelopmental therapy certification, etc.)

□ Yes □ No

If yes, please specify: _____
_____

[if no, respondent cued to skip Q15]

Q14.How well has this continuing education prepared you for working within child care environments such as daycares, preschools and/or after school child care programs?

□ Exceptionally well
□ Very Well
□ Well
□ Not very well
□ Not at all

Q15. We would like to know how much of your entire practice is focused on children. Can you please estimate how much of your typical caseload or work duties correspond to the following age ranges?

Age Ranges	None	Some	About half	Most	All
Infants (0 – 6 months)	□	□	□	□	□
Toddlers (6 – 24 months)	□	□	□	□	□
Preschoolers (2-5 years)	□	□	□	□	□
School-aged (5-10 years)	□	□	□	□	□
Pre-Adolescents (11 – 13 years)	□	□	□	□	□
Adolescent (14 – 18 years)	□	□	□	□	□
Adult (19 and older)	□	□	□	□	□

Q16. We would like to find out more about the children you work with. Can you please estimate how much of your typical caseload or work duties correspond to the following diagnostic categories?

Diagnostic Category	None	Some	About half	Most	All
Acute medical-surgical	☐	☐	☐	☐	☐
Developmental delay (including autism)	☐	☐	☐	☐	☐
Learning disabilities	☐	☐	☐	☐	☐
Neonatology	☐	☐	☐	☐	☐
Neurology	☐	☐	☐	☐	☐
Pediatric mental health	☐	☐	☐	☐	☐
Other (please specify below)	☐	☐	☐	☐	☐

Please specify other diagnostic categories:_____
_____

Q17. How often do you provide services to children in the following environments?

	Never	Rarely	Occasionally	Frequently	Almost Always
Inpatient setting	☐	☐	☐	☐	☐
Outpatient treatment facility	☐	☐	☐	☐	☐
Child's home	☐	☐	☐	☐	☐
Other family home	☐	☐	☐	☐	☐
Child care program	☐	☐	☐	☐	☐
Family child care home	☐	☐	☐	☐	☐
After school child care program	☐	☐	☐	☐	☐
School	☐	☐	☐	☐	☐
Other (please specify below)	☐	☐	☐	☐	☐

The next several questions will help us understand how you work within child care environments. If you work within a school setting, please do not consider this a child care environment (unless children attend a child care program within a school setting).

Q18. Please select the response that best reflects how often you typically complete the following activities for children on your caseload.

How often do you….	Never	Rarely	Occasionally	Frequently	Almost Always
Ask if children are attending child care as a part of your assessment.	☐	☐	☐	☐	☐
recommend that a child attend a child care program.	☐	☐	☐	☐	☐
observe/assess children in a child care environment.	☐	☐	☐	☐	☐
recommend new activities or routines, or adaptations to current activities/routines in a child care environment.	☐	☐	☐	☐	☐
consult with parents regarding their childs inclusion in child care.	☐	☐	☐	☐	☐
support interaction between children with special needs and their typically developing peers in a child care environment.	☐	☐	☐	☐	☐
provide treatment in a child care environment by embedding treatment goals into a group activity.	☐	☐	☐	☐	☐
provide treatment in a child care environment while the child was not involved in a group activity, or with other children (e.g. pull-out therapy).	☐	☐	☐	☐	☐

Q19. We would like to find out more about your interventions related to equipment and play materials within child care environments. Please select the response that best reflects how often you typically complete the following activities:

How often do you….	Never	Rarely	Occasionally	Frequently	Almost Always
assess the physical environment of a child care program.	☐	☐	☐	☐	☐
recommend adaptations to the physical environment of a child care program.	☐	☐	☐	☐	☐
recommend adaptations to the outdoor play area of a child care program.	☐	☐	☐	☐	☐
assess equipment or play materials in a child care environment.	☐	☐	☐	☐	☐
provide equipment or play materials for use in a child care environment.	☐	☐	☐	☐	☐
recommend equipment or play materials for use in a child care environment.	☐	☐	☐	☐	☐
adapt or modify equipment or play materials in a child care environment.	☐	☐	☐	☐	☐
support the use of assistive technology in a child care environment.	☐	☐	☐	☐	☐

Q20. We would like to find out about ways you may support child care providers. Please check the box that best reflects how often you typically complete the following activities.

How often do you….	Never	Rarely	Occasionally	Frequently	Almost Always
consult with staff working at child care environments.	☐	☐	☐	☐	☐
share treatment goals with child care providers.	☐	☐	☐	☐	☐
work collaboratively with child care providers to set client goals.	☐	☐	☐	☐	☐
forward a copy of a report to a child care provider.	☐	☐	☐	☐	☐
provide resource materials for child care providers.	☐	☐	☐	☐	☐
provide individual training for child care providers.	☐	☐	☐	☐	☐
provide group training/education for child care providers.	☐	☐	☐	☐	☐
attend a meeting with child care providers regarding transition to school.	☐	☐	☐	☐	☐

Q21. We would like to understand how you may support leadership within child care environments. Please check the box that best reflects how often you typically complete the following activities.

How often do you….	Never	Rarely	Occasionally	Frequently	Almost Always
have input into the allocation of staffing resources to support children with special needs in a child care environment.	☐	☐	☐	☐	☐
provide expertise to a director/manager or board of directors of a child care environment.	☐	☐	☐	☐	☐
assist with development of inclusive policy for child care environments.	☐	☐	☐	☐	☐
provide input into the overall curriculum or programs of a child care environment.	☐	☐	☐	☐	☐

Q22. Have you participated in any activities that support inclusion at a broader level within a child care environment? This could include any activity that would support the development of all children in attendance, as opposed to a specific child with special needs? (E.g. provided professional development, assisted with development of policy or curriculum, design of space, etc.)

☐ Yes ☐ No

If yes, please specify: _____

_____

Q23. Approximately how many of the children on your caseload would you estimate attend a child care environment?

☐ None
☐ Some
☐ About half
☐ Most
☐ All [*If all, please skip to question 25*]
☐ Unsure

Q24. Of the children on your caseload who DO NOT currently attend a child care environment, how many would benefit from attending? (You may assume that children over the age of 14 would not be eligible to attend child care due to their age.

□ None □ Some □ Many □ Most □ All □ Unsure

Q25. How often have you recommended that a child on your caseload attend a child care program?

□ Never □ Rarely □ Occasionally □ Frequently □ Always □ Unsure

[If never, skip question 26]

Q26. Which of the following factors have influenced your decision to refer a client to a child care program? (Check all that apply.)

- □ My academic education
- □ My continuing education
- □ My personal experiences with child care programs
- □ My professional experiences with previous clients
- □ My relationships with child care providers
- □ Family's request for referral
- □ Knowledge of child care programs in my area
- □ Accessibility of child care programs to families (cost, location, hours of operation, transportation, etc)
- □ Benefits to the child's general development (social, emotional, cognitive, physical, etc)
- □ Benefits to child's specific needs (i.e support for OT goals)
- □ Resources are available to support inclusion of children with special needs
- □ Other (please specify _____

_____

Q27. Which of the following factors have deterred you from referring a child to a child care program? (Check all that apply.)

- □ Child already attending child care program
- □ My education
- □ My continuing education
- □ My personal experiences with child care programs
- □ My professional experiences with previous clients
- □ Relationships with child care providers
- □ Families have not requested referrals
- □ I don't know if there are child care programs in my area
- □ I didn't think about it.
- □ There are no child care programs available in my area.
- □ Child care programs that are available do not meet families needs (i.e. location, cost, hours of availability, transportation, etc.)
- □ Child care programs that are available do not accept children with special needs
- □ I didn't see any benefits to the child
- □ Child care programs do not support treatment goals
- □ Child care providers do not have enough knowledge about children with special needs
- □ Child care providers are not skilled at including children with special needs
- □ Child care programs are unsuitable for other reasons
- □ Parents have not consented to referral
- □ Other (please specify _____)

Child care inclusion refers to the values, policies, and practices that support the right of every infant and young child and his/her family, regardless of ability, to participate in child care programs. (National Professional Development Center on inclusion, 2008).

In inclusive child care environments children with disabilities participate fully and equally with their typically developing peers.

We would like to know how your work with children contributes to the inclusion of children with special needs within child care environments. Please answer the following questions only as they pertain to your work to support children's inclusion in child care environments. We would also like to understand how you work with children and families.

Q28. To what extent does your current work environment/practice support the inclusion of children with special needs in child care environments?

- ☐ A great deal
- ☐ Somewhat
- ☐ It does not [***If it does not, please skip to question 25***]

Q29. How comfortable are you working within child care environment?

- ☐ Very comfortable
- ☐ Comfortable
- ☐ Uncomfortable
- ☐ Very uncomfortable
- ☐ I have never worked in a child care environment

Q30. The Canadian Model of Client Centered Enablement identified key enabling skills. How often do you use the following skills to support inclusion in child care environments?

Skill	Never	Rarely	Occasionally	Frequently	Almost Always	I'm not sure
Adapting	☐	☐	☐	☐	☐	☐
Advocating	☐	☐	☐	☐	☐	☐
Coaching	☐	☐	☐	☐	☐	☐
Collaborating	☐	☐	☐	☐	☐	☐
Consulting	☐	☐	☐	☐	☐	☐
Coordinating	☐	☐	☐	☐	☐	☐
Designing/ Building	☐	☐	☐	☐	☐	☐
Educating	☐	☐	☐	☐	☐	☐
Engaging	☐	☐	☐	☐	☐	☐
Specializing	☐	☐	☐	☐	☐	☐
Other (please specify _____ _____	☐	☐	☐	☐	☐	☐

Q31. We would like to understand the focus of the interventions you use to support child care inclusion. Please indicate how frequently you address each of the following areas in your interventions to support child care inclusion?

Area	Never	Rarely	Occasionally	Frequently	Almost Always
Cognitive performance	☐	☐	☐	☐	☐
Affective performance	☐	☐	☐	☐	☐
Physical performance	☐	☐	☐	☐	☐
Cultural environment	☐	☐	☐	☐	☐
Physical environment	☐	☐	☐	☐	☐
Institutional environment	☐	☐	☐	☐	☐
Social environment	☐	☐	☐	☐	☐
Self care	☐	☐	☐	☐	☐
Productivity	☐	☐	☐	☐	☐
Leisure	☐	☐	☐	☐	☐

Q32. Universal Design for Learning (UDL) is an emerging trend in early childhood education. UDL suggests that early childhood environment should design from the start, an environment, materials and supplies, programs and activities that will meet the needs of the greatest number of learners within the broadest range of skills and abilities. This then minimizes the need for special adaptations for children with special needs.

How familiar are you with the concept of Universal Design for Learning?

- ☐ Not at all familiar
- ☐ Somewhat familiar
- ☐ Familiar
- ☐ Very familiar

Q33. Please identify two key factors that facilitate the inclusion of children with speciall needs in child care environments.

_____
_____
_____
_____

Q34. Please identify two key barriers that make it difficult for children with special needs to be included in child care environments?

_____
_____
_____
_____
_____

Q35. What do you think are two key ways occupational therapists can support child care inclusion?

_____
_____
_____
_____
_____

Q36. What, if anything, could improve your ability to support child care inclusion?

_____
_____
_____
_____
_____

Q37. Please share any other comments that you feel may be relevant to this topic.

_____
_____
_____
_____
_____

Q38. We would like to be able to quote directly from your responses in research findings and associated publications. Do you agree to have direct quotes used from this questionnaire?

□ Yes □ No

Thank you for taking time to complete this questionnaire.

APPENDIX B

SURVEY QUESTIONS BY INCLUSION DOMAIN

Table 19

Survey Questions by Inclusion Domain

Inclusion Domain	Survey Question
Physical Environment	How often do you assess the physical environment of a child care environment? (Q19)
	How often do you recommend adaptations to the physical environment of a child care environment? (Q19)
	How often do you recommend adaptations to the outdoor play area of a child care environment? (Q19)
Equipment and Materials	How often do you recommend equipment or play materials for use in a child care environment? (Q19)
	How often do you assess equipment or play materials in a child care environment? (Q19)
	How often do you adapt or modify equipment or play materials in a child care environment? (Q19)
	How often do you provide equipment or play materials for use in child care environment? (Q19)
	How often do you support the use of assistive technology in a child care environment? (Q19)
Director/ Board of Directors and other Similar Units	How often do you provide expertise to director/manager or board of directors of a child care environment? (Q21)
	How often do you provide input into the overall curriculum or programs of a child care environment? (Q21)
	How often do you assist with the development of inclusive policy for child care environment? (Q21)
Staff Support	How often do you have input into the allocation of staffing resources to support children with special needs in a child care environment? (Q21)
Staff Training	How often do you provide resource materials for child care providers? (Q20)
	How often do you provide individual training for child care providers? (Q20)
	How often do you provide group training for child care providers? (Q20)
Therapies	How often do you recommend new activities or routines, or adaptations to current activities/routines in a child care environment? (Q18)
	How often do you consult with staff working at a child care environment? (Q20)
	How often do you observe/assess children in a child care environment? (Q18)

Inclusion Domain	Survey Question
	How often do you forward a copy of a report to a child care provider? (Q20)
	How often do you provide treatment in a child care environment by embedding treatment goals into a group activity? (Q18)
	How often do you provide treatment in a child care environment while the child was not involved in a group activity, or with other children (e.g. pull-out therapy)? (Q18)
Individual Program Plans	How often do you share treatment goals with child care providers? (Q20)
	How often do you work collaboratively with child care providers to set client goals? (Q20)
Parents of Children with Special Needs	How often do you consult with parents regarding their child's inclusion in child care? (Q18)
Involvement with Typical Children	How often do you support interaction between children with special needs and their typically developing peers in a child care environment? (Q18)
Preparing for Transition to School	How often do you attend a meeting with child care providers regarding transition to school? (Q20)

APPENDIX C

INTRODUCTORY LETTER

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Occupational Therapy and Inclusion in Child Care Environments

May 2010

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Contact Person: Darla King, Principal Investigator

Do you have any questions about this research or problems or difficulties as a result of this research? You can call Darla King, the Principal Investigator, at any point in time, at709-637-8015 or by email at darlaking@westernhealth.nl.ca.

You are invited to take part in a research study being conducted by Darla King, graduate student at Dalhousie University as part of the Masters of Science (OT Post Professional) program. Your participation in this study is voluntary and you may withdraw from the study at any time with no negative consequences. The study is described below. This description tells you about the risks, inconvenience, or discomfort that you might experience. Participating in the study will not benefit you, but we might learn things that will benefit others. You should discuss any questions you have about this study with Darla King at 709-637-8015 or by email at darlaking@westernhealth.nl.ca.

Purpose: The purpose of this research study is to explore how Canadian occupational therapists contribute to the inclusion of children with special needs in child care settings. There is currently little published evidence to identify what role occupational therapists have in these settings. This study aims to identify the nature and extent of OT involvement in child care settings, and strategies used to help promote inclusion of children within these settings. It is anticipated that this knowledge will have implications for Occupational Therapy education, training and research.

Study Design: This project will collect data through an electronic survey .sent to all occupational therapists who self-identified as working with children on OT Finder.

Who can participate in this study? You may participate in this study if you are an occupational therapist, licensed to practice in Canada. You must be currently registered with CAOT and have worked with children under the age of 14 in the past 24 months.

Who will be conducting the research: This research is being conducted by Darla King, under the supervision of Dr. Joan Versnel, at Dalhousie School of Occupational Therapy.

What you will be asked to do: If you agree to participate in this study you will complete the attached questionnaire and submit it via the web. The questionnaire should take approximately 30 minutes to complete, depending on your individual experience with child care inclusion. If you fit the population for this research, but have not worked within a child care setting, or specifically to promote inclusion in child care settings, you are still encouraged to complete the survey. The survey will include answering a series of questions involving a rating scale, provision of basic descriptions of your practice, as well as some broader questions which require written responses. You may ignore any questions that you do not wish to answer. Your written responses may be quoted in the analysis of the research findings. Consent for using such quotes is assumed if you choose to write such responses. By submitting the online survey, once you have completed it, you are implying consent to participate in this project. Once you have submitted your survey answers, it will not be possible to withdraw your data.

Possible Risks and Discomforts: There are minimal risks to participating in this study. You might feel some discomfort sharing your personal opinions about working in child care settings, such as opinions that may reflect negatively on your colleagues, your organization, or your profession. You may choose not to answer any of the questions posed in the questionnaire.

Benefits: You will not experience direct benefit from this research. It is anticipated that this research will contribute to the knowledge base for Occupational Therapy by identifying how occupational therapists support child care inclusion. This knowledge may be of use to occupational therapists, managers, educators, and policy makers, and may support emerging roles for occupational therapists in child care environments.

Compensation / Reimbursement: Participants will not receive compensation for their participation in this study.

Confidentiality & Anonymity: Participation in this study is anonymous. You will not be identified as a study participant in any reports or publication of this research. Even the primary researcher, Darla King, will not know which of the occupational therapists sent the survey actually completed it. All responses will remain confidential and results will be presented in aggregate form only. Neither you, nor any organization that you may be associated with will be identified in any way. All data will be maintained in a secure manner on a secure server or memory stick which is password protected. Only the researchers will see your data. All data will be destroyed five years after study completion.

Participation: Your participation is purely voluntary. You may choose whether or not to participate in this study. If you choose not to participate, this will have no negative consequences. Your decision to participate or not will be confidential.

Questions: If you have any questions about this research at any point, you can contact Darla King at darlaking@westernhealth.nl.ca.

Problems or Concerns: If you have any difficulties with, or wish to voice concern about, any aspect of your participation in this study, you may contact Patricia Lindley, Director of Dalhousie University's Office of Human Research Ethics Administration, for assistance (902) 494-1462, patricia.lindley@dal.ca

APPENDIX D

TREATMENT SETTING DETAILED RESULTS

Table 20

Percentage of Respondents who Completed an Inclusive Strategy by the Frequency of Treatment in Inpatient Treatment Environment

Inclusive strategy practiced on a frequent basis[1]	Never inpatient (%)	Occasionally inpatient (%)	Frequently inpatient (%)	χ^2	*p*
Observe/assess children in a child care environment	39	35	7	10.548	0.032
Assess the physical environment of a child care program	45	36	0	14.581	0.006
Assess equipment or play materials in a child care environment	37	27	7	9.509	0.050
Provide individual training for child care providers	36	31	0	9.706	0.046
Participate in activities that support inclusion for ALL children at a broader level within a child care environment?	50	33	0	14.72	0.001

[1]includes respondents who responded frequently or almost always

Table 21

Percentage of Respondents who Completed an Inclusive Strategy by the Frequency of Treatment in Outpatient Treatment Setting

Inclusive strategy practiced on a frequent basis[1]	Never outpatient (%)	Occasionally outpatient (%)	Frequently outpatient (%)	χ^2	*p*
Ask if children are attending child care as a part of your assessment	49	52	84	29.952	0.000
Recommend that a child attend a child care program	18	27	41	17.177	0.002
Provide equipment or play materials for use in a child care environment	27	21	13	10.536	0.032
Recommend new activities or routines, or adaptations to current activities/routines in a child care environment	43	50	45	9.96	0.041
Recommend equipment or play materials for use in a child care environment	41	43	33	11.875	0.018
Share treatment goals with child care providers	49	61	53	13.492	0.009
Forward a copy of a report to a child care provider	43	57	39	15.585	0.004

[1]includes respondents who responded frequently or almost always

Table 22

Percentage of Respondents who Completed an Inclusive Strategy by the Frequency of Treatment in Childs Own Home

Inclusive strategy practiced on a frequent basis[1]	Never childs home (%)	Occasionally childs home (%)	Frequently childs home (%)	χ^2	*p*
Ask if children are attending child care as a part of your assessment	42	53	86	26.676	0.000
Recommend that a child attend a child care program	8	23	44	20.031	0.000
Observe/assess children in a child care environment	19	24	59	56.281	0.000
Consult with parents regarding their child's inclusion in child care	35	37	60	22.263	0.000
Support interaction between children with special needs and their typically developing peers in a child care environment	39	42	57	17.899	0.001
Assess the physical environment of a child care program	20	34	54	25.855	0.000
Recommend adaptations to the physical environment of a child care program	12	29	46	16.693	0.002
Recommend adaptations to the outdoor play area of a child care program	4	10	27	16.212	0.003
Assess equipment or play materials in a child care environment	20	22	56	29.96	0.000
Provide equipment or play materials for use in a child care environment	8	17	30	16.641	0.002
Recommend equipment or play materials for use in a child care environment	20	31	56	21.338	0.000
Adapt or modify equipment or play materials in a child care environment	16	19	36	19.956	0.001
Consult with staff working at child care environment	29	46	70	28.335	0.000
Share treatment goals with child care providers	29	47	71	27.461	0.000

Inclusive strategy practiced on a frequent basis[1]	Never childs home (%)	Occasionally childs home (%)	Frequently childs home (%)	χ^2	*p*
Work collaboratively with child care providers to set client goals	25	39	62	29.148	0.004
Forward a copy of a report to a child care provider	29	44	51	15.293	0.004
Provide resource materials for child care providers	21	41	58	27.624	0.000
Provide individual training for child care providers	4	28	29	14.326	0.006
Provide group training/education for child care providers	21	36	48	15.033	0.005
Provide input into the overall curriculum or programs of a child care environment	17	5	1	9.908	0.042
Recommend new activities or routines, or adaptations to current activities/routines in a child care environment	42	37	59	13.859	0.008
Provide treatment in a child care environment by embedding treatment goals into a group activity	23	21	47	25.808	0.000

[1]includes respondents who responded frequently or almost always

Table 23

Percentage of Respondents who Completed an Inclusive Strategy by the Frequency of Treatment in Other Family Homes

Inclusive strategy practiced on a frequent basis[1]	Never other family home (%)	Occasionally other family home (%)	Frequently other family home (%)	χ^2	*p*
Ask if children are attending child care as a part of your assessment	50	77	100	23.065	0.000
Recommend that a child attend a child care program	18	38	70	18.494	0.001
Observe/assess children in a child care environment	23	48	80	28.036	0.000
Consult with parents regarding their child's inclusion in child care	34	55	80	16.202	0.003
Support interaction between children with special needs and their typically developing peers in a child care environment	38	54	90	15.923	0.003
Provide treatment in a child care environment by embedding treatment goals into a group activity	33	42	70	21.107	0.000
Assess the physical environment of a child care program	32	45	70	12.207	0.016
Assess equipment or play materials in a child care environment	28	38	60	14.068	0.007
Provide equipment or play materials for use in a child care environment	17	20	70	26.052	0.000
Recommend equipment or play materials for use in a child care environment	29	46	80	17.495	0.002
Adapt or modify equipment or play materials in a child care environment	19	19	50	16.134	0.003
Support the use of assistive technology in a child care environment	13	22	60	17.851	0.001
Consult with staff working at child care environment	43	60	90	14.141	0.007

Inclusive strategy practiced on a frequent basis[1]	Never other family home (%)	Occasionally other family home (%)	Frequently other family home (%)	χ^2	*p*
Share treatment goals with child care providers	43	61	90	15.695	0.003
Work collaboratively with child care providers to set client goals	34	55	90	19.489	0.001
Provide resource materials for child care providers	42	54	70	13.264	0.010
Attend a meeting with child care providers regarding transition to school	27	49	70	14.061	0.007
Assist with development of inclusive policy for child care environments	5	0	0	11.041	0.026
Provide input into the overall curriculum or programs of a child care environment	9	1	0	10.861	0.028

[1]includes respondents who responded frequently or almost always

Table 24

Percentage of Respondents who Completed an Inclusive Strategy by the Frequency of Treatment in Child Care Programs

Inclusive strategy practiced on a frequent basis[1]	Never child care program (%)	Occasionally child care program (%)	Frequent child care program (%)	χ^2	*p*
Ask if children are attending child care as a part of your assessment	36	69	82	31.257	0.000
Recommend that a child attend a child care program	10	32	43	23.409	0.000
Observe/assess children in a child care environment	9	24	82	110.56	0.000
Recommend new activities or routines, or adaptations to current activities/routines in a child care environment	24	35	84	65.724	0.000
Consult with parents regarding their child's inclusion in child care	22	39	77	52.676	0.000
Support interaction between children with special needs and their typically developing peers in a child care environment	25	43	75	60.939	0.000
Provide treatment in a child care environment by embedding treatment goals into a group activity	7	25	63	69.941	0.000
Provide treatment in a child care environment while the child was not involved in a group activity, or with other children (e.g. pull-out therapy)	5	6	23	31.632	0.000
Assess the physical environment of a child care program	18	31	75	78.31	0.000
Recommend adaptations to the physical environment of a child care program	16	24	63	65.7	0.000
Recommend adaptations to the outdoor play area of a child care program	9	10	29	26.209	0.000
Assess equipment or play materials in a child care environment	13	28	63	60.545	0.000
Provide equipment or play materials for use in a		13	41	45.613	0.000

Inclusive strategy practiced on a frequent basis[1]	Never child care program (%)	Occasionally child care program (%)	Frequent child care program (%)	χ^2	*p*
environment					
Recommend equipment or play materials for use in a child care environment	21	32	66	54.759	0.000
Adapt or modify equipment or play materials in a child care environment	11	19	46	44.551	0.000
Support the use of assistive technology in a child care environment	9	17	32	14.129	0.007
Consult with staff working at child care environment	20	47	91	72.6	0.000
Share treatment goals with child care providers	22	48	91	71.08	0.000
Work collaboratively with child care providers to set client goals	18	40	80	68.333	0.000
Forward a copy of a report to a child care provider	24	40	71	46.998	0.000
Provide resource materials for child care providers	22	39	75	51.343	0.000
Provide individual training for child care providers	13	23	41	30.389	0.000
Provide group training/education for child care providers	11	12	30	35.386	0.000
Attend a meeting with child care providers regarding transition to school	20	35	63	35.909	0.000
Provide expertise to a director/manager or board of directors of a child care environment	6	8	9	18.841	0.001
Participate in activities that support inclusion for ALL children at a broader level within a child care environment?	26	34	71	28.172	0.000

[1]includes respondents who responded frequently or almost always

Table 25

Percentage of Respondents who Completed an Inclusive Strategy by the Frequency of Treatment in Family Child Care Homes

Inclusive strategy practiced on a frequent basis[1]	Never family child care home (%)	Occasionally family child care home (%)	Frequently family child care home (%)	χ^2	*p*
Ask if children are attending child care as a part of your assessment	52	77	78	16.197	0.003
Recommend that a child attend a child care program	19	41	44	26.263	0.000
Observe/assess children in a child care environment	24	48	78	36.916	0.000
Consult with parents regarding their child's inclusion in child care	32	61	67	22.801	0.000
Support interaction between children with special needs and their typically developing peers in a child care environment	37	54	100	32.423	0.000
Provide treatment in a child care environment by embedding treatment goals into a group activity	24	35	67	29.371	0.000
Provide treatment in a child care environment while the child was not involved in a group activity, or with other children (e.g. pull-out therapy)	7	14	22	11.172	0.025
Assess the physical environment of a child care program	33	46	67	25.443	0.000
Recommend adaptations to the physical environment of a child care program	27	37	67	22.541	0.000
Recommend adaptations to the outdoor play area of a child care program	8	20	56	34.195	0.000
Assess equipment or play materials in a child care environment	29	29	44	28.013	0.000
Provide equipment or play materials for use in a child care environment	19	20	44	31.591	0.000
Recommend equipment or play materials for use in		44	56	24.848	0.000

Inclusive strategy practiced on a frequent basis[1]	Never family child care home (%)	Occasionally family child care home (%)	Frequently family child care home (%)	χ^2	*p*
care environment					
Adapt or modify equipment or play materials in a child care environment	21	28	33	33.501	0.000
Consult with staff working at child care environment	38	68	89	29.799	0.000
Share treatment goals with child care providers	41	65	89	26.285	0.000
Work collaboratively with child care providers to set client goals	33	58	89	30.911	0.000
Forward a copy of a report to a child care provider	40	47	78	18.72	0.001
Provide resource materials for child care providers	35	55	67	15.484	0.0047
Provide individual training for child care providers	21	31	33	14.626	0.006
Provide group training/education for child care providers	10	26	22	17.846	0.001
Attend a meeting with child care providers regarding transition to school	31	46	67	15.485	0.004
Provide expertise to a director/manager or board of directors of a child care environment	7	9	11	16.738	0.002
Participate in activities that support inclusion for ALL children at a broader level within a child care environment?	32	56	44	10.137	0.006
Recommend new activities or routines, or adaptations to current activities/routines in a child care environment	27	57	56	18.066	0.001

[1]includes respondents who responded frequently or almost always

Table 26

Percentage of Respondents who Completed an Inclusive Strategy by the Frequency of Treatment in Afterschool Programs

Inclusive strategy practiced on a frequent basis[1]	Never after school program (%)	Occasionally after school program (%)	Frequently after school program (%)	χ^2	*p*
Participate in activities that support inclusion for ALL children at a broader level within a child care environment?	37	50	100	6.837	0.033
Observe/assess children in a child care environment	31	42	100	9.64	0.047
Provide group training/education for child care providers	13	23	67	11.461	0.022
Have input into the allocation of staffing resources to support children with special needs in a child care environment	6	7	67	21.167	0.000
Assist with development of inclusive policy for child care environments	3	0	33	13.654	0.008
Provide input into the overall curriculum or programs of a child care environment	5	3	67	23.917	0.000
Ask if children are attending child care as a part of your assessment	63	66	0	9.5	0.049

[1]includes respondents who responded frequently or almost always

Table 27

Percentage of Respondents who Completed an Inclusive Strategy by the Frequency of Treatment in Schools

Inclusive strategy practiced on a frequent basis[1]	Never school (%)	Occasionally school (%)	Frequently school (%)	χ^2	*p*
Provide individual training for child care providers	19	23	29	11.002	0.027
Recommend new activities or routines, or adaptations to current activities/routines in a child care environment	59	53	36	12.531	0.014
Consult with parents regarding their child's inclusion in child care	62	57	33	15.775	0.003
Support interaction between children with special needs and their typically developing peers in a child care environment	62	53	38	10.18	0.038
Provide treatment in a child care environment by embedding treatment goals into a group activity	29	37	26	10.781	0.029
Consult with staff working at child care environment	63	57	47	11.368	0.023
Share treatment goals with child care providers	63	59	47	15.42	0.004
Work collaboratively with child care providers to set client goals	56	46	42	16.569	0.002
Forward a copy of a report to a child care provider	53	44	42	10.88	0.028
Ask if children are attending child care as a part of your assessment	77	86	46	32.246	0.000
Recommend that a child attend a child care program	41	42	17	22.683	0.000
Observe/assess children in a child care environment	44	44	28	10.931	0.027
Provide resource materials for child care providers	59	41	42	12.655	0.013

[1]includes respondents who responded frequently or almost always

APPENDIX E

AGE DETAILED RESULTS

Table 28

Percentage of Respondents who Completed an Inclusive Strategy by the Number of Infants on their Caseload

Inclusive strategy practiced frequently[1]	No infants (%)	Some infants (%)	Mostly infants (%)	χ^2	*p*
Asked if attending child care program	50	82	88	25.289	0.000
Recommended that a child attend a child care program	17	50	50	38.741	0.000
Provide equipment or play materials for use in a child care environment	22	19	13	11.308	0.023
Provide individual training for child care providers	27	26	0	10.776	0.029
Assist with development of inclusive policy for child care environment	4	1	0	10.187	0.037
Provide group training/education for child care providers	19	14	13	9.594	0.048
Consult with staff working at a child care environment	43	69	25	21.996	0.000
Share treatment goals with child care providers	44	70	25	24.884	0.000
Work collaboratively with child care providers to set client goals	41	55	25	21.562	0.000
Recommend new activities or routines, or adaptations to current activities/routines in a child care environment	41	53	50	17.881	0.001
Consults with parents regarding their Childs inclusion in child care environment	37	58	37	18.325	0.001
Recommend equipment or play materials for use in a child care environment	36	43	25	19.142	0.001
Forward a copy of a report to a child care provider	40	55	13	18.226	0.001
Provide resource materials for child care providers	36	58	38	18.237	0.001
Assess equipment or play materials in a child care	28	45	13	16.025	0.003

Inclusive strategy practiced frequently[1]	No infants (%)	Some infants (%)	Mostly infants (%)	χ^2	*p*
environment					
Adapt or modify equipment or play materials in a child care environment	24	26	25	16.242	0.003
Supports interaction between children with special needs and their typically developing peers in a child care environment	40	60	38	15.371	0.004
Observe/assess children in a child care environment	29	47	25	14.441	0.006
Recommend adaptations to the outdoor play area of a child care program	10	23	13	13.954	0.007
Assess the physical environment of a child care program	37	45	25	13.682	0.008
Recommend adaptations to the physical environment of a child care program	28	41	25	13.138	0.011
Attend a meeting with child care providers regarding transition to school	32	50	25	12.385	0.015
Provides treatment in a child care environment by embedding treatment goals into a group activity	28	35	13	10.663	0.031

[1]includes respondents who responded frequently or almost always

Table 29

Percentage of Respondents who Completed an Inclusive Strategy by the Number of Toddlers on Their Caseload

Inclusive strategy practiced frequently[1]	No toddlers (%)	Some toddlers (%)	Mostly toddlers (%)	χ^2	p
Ask if children are attending child care as a part of your assessment	41	75	89	33.145	0.000
Recommend that a child attend a child care environment	12	34	57	44.081	0.000
Observe/assess children in a child care environment	21	41	61	31.453	0.000
Recommend new activities or routines, or adaptation to current activities/routines in a child care environment	35	50	61	20.01	0.000
Consult with parents regarding their Childs inclusion in child care	28	532	64	25.289	0.000
Support interaction between children with special needs and their typically developing peers in a child care environment	31	55	64	24.368	0.000
Provide treatment in a child care environment by embedding treatment goals into a group activity	21	26	36	18.296	0.000
Assess the physical environment of a child care program	31	43	54	15.734	0.003
Recommend adaptations to the physical environment of a child care program	27	33	46	18.164	0.001
Recommend adaptations to the outdoor play area of a child care program	9	16	29	15.428	0.004
Assess equipment or play materials in a child care environment	26	34	54	29.247	0.000
Recommend equipment or play materials for use in a child care environment	31	42	50	19.379	0.001
Adapt or modify equipment or play materials in a child care environment	21	23	39	16.652	0.002

Inclusive strategy practiced frequently[1]	No toddlers (%)	Some toddlers (%)	Mostly toddlers (%)	χ^2	p
Consult with staff working at child care environment	36	60	71	26.883	0.000
Share treatment goals with child care providers	37	62	68	34.268	0.000
Provide resource materials for child care providers	28	52	64	30.073	0.000
Assist with the development of inclusive policy for child care environments	4	2	0	11.207	0.029
Work collaboratively with child care providers to set client goals	34	53	50	35.750	0.000
Forward a copy of a report to a child care provider	33	54	43	28.010	0.000

[1]includes respondents who responded frequently or almost always

Table 30

Percentage of Respondents who Completed an Inclusive Strategy by the Number of Preschoolers on their Caseload

Inclusive strategy practiced on a frequent basis[1]	No preschoolers (%)	Some preschoolers (%)	Mostly preschoolers (%)	χ^2	*p*
Ask if children are attending child care as part of assessment	22	31	77	30.137	0.000
Recommend that a child attend a child care program	4	24	40	22.648	0.000
Observe/assess children in a child care environment	4	26	55	47.782	0.000
Recommend new activities or routines, or adaptations to current activities/routines in a child care environment	17	34	66	34.806	0.000
consult with parents regarding their childs inclusion in child care	9	36	65	35.002	0.000
support interaction between children with special needs and their typically developing peers in a child care environment	13	41	62	43.842	0.000
Provide treatment in a child care environment by embedding treatment goals into group activity	4	20	48	44.291	0.000
Assess the physical environment of a child care program	13	28	60	40.357	0.000
Recommend adaptation to the physical environment of a child care program	13	27	45	28.277	0.000
Assess equipment or play materials in a child care environment	9	23	64	37.703	0.000
Provide equipment or play materials in a child care environment	9	13	33	27.145	0.000
recommend equipment or play materials	9	28	59	37.887	0.000
Adapt or modify equipment or play materials for use in a child care environment	9	20	34	39.552	0.000
Consult with staff working at child care environment	14	43	72	38.158	0.000

Inclusive strategy practiced on a frequent basis[1]	No preschoolers (%)	Some preschoolers (%)	Mostly preschoolers (%)	χ^2	*p*
Share treatment goals with child care providers	14	45	72	49.64	0.000
Work collaboratively with child care providers to set client goals	14	41	59	51.56	0.000
Forward a copy of a report to a child care provider	9	42	57	28.515	0.000
Provide resource materials for child care providers	9	43	55	28.908	0.000
Provide individual training for child care providers	14	22	33	20.938	0.000
Attend a meeting with child care providers regarding transition to school	23	27	55	22.662	0.000
Participate in activities that support inclusion at a broader level, that support the development of all children in attendance	86	69	58	24.16	0.000
Provide treatment in a child care environment while the child was not involved in group activity, or with other children (e.g. pull-out therapy)	9	8	13	12.098	0.017

[1]includes respondents who responded frequently or almost always

Table 31

Percentage of Respondents who Completed an Inclusive Strategy by the Number of School Aged Children on their Caseload

Inclusive strategy practiced on a frequent basis[1]	No school age (%)	Some school aged (%)	Mostly school aged (%)	χ^2	*p*
Recommend that a child attend a child care program	38	35	19	21.391	0.000
Share treatment goals with child care providers	63	63	37	26.784	0.000
Work collaboratively with child care providers to set client goals	54	53	34	28.31	0.000
Adapt or modify equipment or play materials in a child care environment	38	24	22	16.752	0.002
Forward a copy of a report to a child care provider	58	50	34	15.43	0.004
Recommend adaptations to the physical environment of a child care program	46	40	21	12.466	0.014
Provide resource materials for child care providers	58	48	37	12.347	0.015
Assess equipment or play materials in a child care environment	46	40	23	12.03	0.017
Recommend equipment or play materials for use in a child care environment	50	43	30	11.331	0.023
Provide group training/education for child care providers	21	19	13	9.682	0.046
Observe/assess children in child care environment	38	50	19	22.949	0.000
Consult with parents regarding their Childs inclusion in child care	42	57	32	23.889	0.000
Provide treatment in a child care environment by embedding treatment goals into a group activity	29	43	17	24.36	0.000
Consult with staff working at child care environments	63	64	35	22.038	0.000

Inclusive strategy practiced on a frequent basis[1]	No school age (%)	Some school aged (%)	Mostly school aged (%)	χ^2	*p*
Recommend new activities or routines, or adaptation to current activities/routines in a child care environment	50	59	29	18.108	0.001
Ask if children are attending child care as a part of assessment	71	73	49	17.053	0.002
Provide equipment or play materials for use in a child care environment	17	25	17	9.626	0.047

[1]includes respondents who responded frequently or almost always

Table 32

Percentage of Respondents who Completed an Inclusive Strategy by the Number of Pre-Adolescents on their Caseload

Inclusive strategy practiced on a frequent basis[1]	No preadolescents (%)	Some preadolescents (%)	Mostly preadolescents (%)	χ^2	p
Recommend that a child attend a child care program	40	24	22	11.355	0.023
Observe/assess children in a child care environment	55	28	22	17.884	0.001
Recommend new activities or routines, or adaptation to current activities/routines in a child care environment	63	41	22	15.041	0.005
Support interaction between children with special needs and their typically developing peers in a child care environment	58	43	39	11.285	0.024
Provide treatment in a child care environment by embedding treatment goals into a group activity	47	23	22	18.189	0.001
Assess the physical environment of a child care program	57	32	32	14.138	0.007
Assess equipment or play materials in a child care environment	53	25	23	15.711	0.003
Consult with staff working at a child care environment	68	47	33	14.469	0.006
Share treatment goals with child care providers	70	48	33	15.415	0.004
Work collaboratively with child care providers to set client goals	58	41	33	12.245	0.016
Provide individual training for child care providers	63	36	38	13.095	0.011

[1]includes respondents who responded frequently or almost always

Table 33

Percentage of Respondents who Completed an Inclusive Strategy by the Number of Adolescents on their Caseload

Inclusive strategy practiced on a frequent basis[1]	No adolescents (%)	Some adolescents (%)	Mostly adolescents (%)	χ^2	*p*
Assess the physical environment of a child care program	52	29	56	11.418	0.022
Assess equipment or play materials in a child care environment	49	22	33	16.081	0.003

[1]includes respondents who responded frequently or almost always

Table 34

Percentage of Respondents who Completed an Inclusive Strategy by the Number of Adults on their Caseload

Inclusive strategy practiced on a frequent basis[1]	No adults (%)	Some adults (%)	Mostly adults (%)	χ^2	p
Ask if children are attending child care as a part of your assessment	67	58	0	11.173	0.025
Observe/assess children in a child care environment	37	33	0	9.844	0.043
Recommend new activities or routines, or adaptations to current activities/routines in a child care environment	47	45	0	17.507	0.002
Consult with parents regarding their Childs inclusion in child care	46	46	0	13.067	0.011
Support interaction between children with special needs and their typically developing peers in a child care environment	48	48	0	12.243	0.016
Assist with development of inclusive policy for child care environments	1	9	0	12.239	0.016

[1]includes respondents who responded frequently or almost always

APPENDIX F

DIAGNOSTIC CATEGORY DETAILED RESULTS

Table 35

Percentage of Respondents who Completed an Inclusive Strategy by the Number of Neurology Clients on their Caseload

Inclusive strategy practices on a frequent basis[1]	No neurology (%)	Some neurology (%)	Mostly neurology (%)	χ^2	*p*
Recommend adaptations to the outdoor play area of a child care program	7	12	32	12.385	0.015
Provide expertise to a director/manager or board of directors of a child care environment	5	7	11	12.837	0.012
Recommend new activities or routines, or adaptations to current activities/routines in a child care environment	52	42	47	9.727	0.045
Support the use of assistive technology in a child care environment	15	14	41	13.798	0.008

[1]includes respondents who responded frequently or almost always

Table 36

Percentage of Respondents who Completed an Inclusive Strategy by the Number of Acute Medical Surgical Clients on their Caseload

Inclusive strategy practiced on a frequent basis[1]	No acute medical surgical (%)	Some acute medical surgical (%)	Mostly acute medical surgical (%)	χ^2	*p*
Ask if children are attending child care as a part of your assessment	49	41	0	9.716	0.046
Assess the physical environment of a child care program	39	45	0	9.798	0.044
Recommend adaptations to the physical environment of a child care program	28	45	14	15.547	0.004
Recommend adaptations to the outdoor play area of a child care program	11	26	0	13.917	0.008
Assess equipment or play materials in a child care environment	34	36	2	9.639	0.047
Recommend equipment or play materials for use in a child care environment	39	41	14	10.584	0.032

[1]includes respondents who responded frequently or almost always

Table 37

Percentage of Respondents who Completed an Inclusive Strategy by the Number of Neonatology Clients on their Caseload

Inclusive strategy practiced on a frequent basis[1]	No neonatology (%)	Some neonatology (%)	Mostly neonatology (%)	χ^2	*p*
Forward a copy of a report to a child care provider	46	45	22	18.246	0.001
Recommend that a child attend a child care program	23	48	33	11.834	0.019
Observe/assess children in a child care environment	36	50	0	10.245	0.036
Support interaction between children with special needs and their typically developing peers in a child care environment	46	57	11	11.689	0.020
Assess the physical environment of a child care program	39	48	11	9.657	0.047
Recommend adaptations to the physical environment of a child care program	31	43	11	16.962	0.002
Assess equipment or play materials in a child care environment	34	36	22	11.765	0.019
Recommend equipment or play materials for use in a child care environment	38	43	22	11.597	0.021
Consult with staff working at child care environment	50	64	22	9.762	0.045
Attend a meeting with child care providers regarding transition to school	35	55	11	12.736	0.013

[1]includes respondents who responded frequently or almost always

Table 38

Percentage of Respondents who Completed an Inclusive Strategy by the Number of Developmentally Delayed Clients on their Caseload

Inclusive strategy practiced on a frequent basis[1]	No developmental delay (%)	Some developmental delay (%)	Mostly developmental delay (%)	χ^2	*p*
Ask if children are attending child care as a part of your assessment	25	56	66	16.595	0.002
Observe/assess children in a child care environment	0	22	39	10.701	0.03
Assess the physical environment of a child care program	0	19	47	16.688	0.002
Recommend adaptations to the physical environment of a child care program	0	17	38	11.519	0.021
Assess equipment or play materials in a child care environment	0	19	39	15.233	0.004
Adapt or modify equipment or play materials in a child care environment	0	21	26	12.705	0.013
Consult with staff working at child care environment	3	36	57	12.693	0.013
Forward a copy of a report to a child care provider	0	30	50	10.748	0.030
Provide resource materials for child care providers	0	28	51	11.365	0.023
Participate in activities that support inclusion for ALL children at a broader level within a child care environment?	0	27	48	8.613	0.013
Recommend that a child attend a child care program	0	47	33	11.724	0.020
Support the use of assistive technology in a child care environment	0	23	18	10.806	0.029
Attend a meeting with child care providers regarding transition to school	33	17	45	12.652	0.013

[1]includes respondents who responded frequently or almost always

APPENDIX G

ENABLING OCCUPATION

Table 39

Percentage of Respondents who Addressed Occupational Performance Components by the Frequency that Child Care Environments were used as Treatment Settings

Component Addressed Frequently / Almost Always	Never child care environment (%)	Rarely/occasionally child care environments (%)	Frequently/ almost always child care environments (%)	χ^2	*p*
Cognitive Performance	41	55	61	24.275	0.000
Affective Performance	31	40	50	16.941	0.002
Physical Performance	57	75	89	30.574	0.000
Cultural Environment	28	28	32	9.558	0.049
Physical Environment	51	64	72	18.294	0.001
Institutional Environment	21	31	35	7.784	0.100
Social Environment	46	51	69	22.735	0.000
Self Care	56	71	87	31.986	0.000
Productivity	51	69	87	25.201	0.000
Leisure	56	56	82	14.137	0.007